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Aarb. norges Geol. Undersök. See *Norges Geologiske Undersökelse.*

Abh. geol. Karte Elsass-Lothringen. Abhandlungen zur geologischen Specialkarte von Elsass-Lothringen. Strasburg.

Abh. hessisch. geol. Landesanst. Abhandlungen der grossherzoglich hessischen geologischen Landesanstalt. Darmstadt.

Abh. k.-bayer. Akad. Wissensch. Abhandlungen der königlich-bayerischen Akademie der Wissenschaften. Munich.

Abh. k.-k. geol. Reichsanst. Abhandlungen der kaiserlich-königlich geologischen Reichsanstalt. Vienna.

Abh. k. Leop.-Car. deutsch. Akad. Abhandlungen der kaiserlichen Leopoldinisch-Carolinischen deutschen Akademie der Naturforscher. Halle. See also *Nova Acta Acad. Cæs. Leop.-Car.*

Abh. k.-preuss. geol. Landesanst. Abhandlungen der königlich preussischen geologischen Landesanstalt. Berlin.

Abh. naturf. Gesellsch. Halle. Abhandlungen der naturforschenden Gesellschaft zu Halle. Stuttgart.

Abh. schw. paläont. Gesellsch. See *Mém. Soc. paléont. suisse.*

Abh. Senckenb. naturf. Gesellsch. Abhandlungen herausgegeben von der Senckenbergischen naturforschenden Gesellschaft. Frankfort-on-the-Main.

Abs. Proc. G. S. Abstracts of the Proceedings of the Geological Society. London.

Actes Soc. helv. Sci. nat. Actes de la Société helvétique des Sciences Naturelles. Berne, &c. See also *Verh. schweiz. naturf. Gesellsch.*

Actes Soc. Linn. Bordeaux. Actes de la Société Linnéenne de Bordeaux. Bordeaux.

Actes Soc. sci. Chili. Actes de la Société scientifique du Chili. Santiago de Chile.

Alabama Geol. Surv. Geological Survey of Alabama. Montgomery (Ala.).

Am. Geol. American Geologist. Minneapolis (Minn.). See *Econ. Geol.*

Am. Journ. Sci. American Journal of Science. New Haven (Conn.).

An. Inst. geol. României. Anuarul Institutului geologic al României. Bukharest.

An. Mus. Geol. & Paleont. Bucuresti. Anuarulŭ Museului de Geologia si de Paleontologia. Bukharest.

An. Mus. La Plata. Anales del Museo de la Plata. La Plata.

An. Mus. Nac. Buenos Aires. Anales del Museo Nacional de Buenos Aires. Buenos Aires.

An. R. Acad. Cienc. Madrid. Anuario de la Real Academia de Ciencias exactas, fisicas y naturales. Madrid.

An. Soc. cient. Argent. Anales de la Sociedad científica Argentina. Buenos Aires.

Ann. Acad. Roy. Belg. Annuaire de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.

Ann. Bull. Min. Resources, Univ. Geol. Surv. Kansas. Annual Bulletin on the Mineral Resources of Kansas. Lawrence (Kan.).

Ann. Escola Minas, Ouro Preto. Annaes da Escola de Minas. Ouro Preto (Brazil).

Ann. géol. et min. Russ. Annuaire géologique et minéralogique de la Russie. Warsaw & Novo Alexandria.

Ann. Géol. et Paléont., Palerme. Annales de Géologie et de Paléontologie. Palermo.

Ann. géol. Penin. balkan., Belgrad. Annales géologiques de la Peninsule balkanique. Belgrade.

Ann. Glaciologie, Berlin. See *Zeitschr. f. Gletscherk. Berlin.*

Ann. k.-k. naturhist. Hofmus., Wien. Annalen des kaiserlich-königlichen naturhistorischen Hofmuseums. Vienna.

Ann. Mag. Nat. Hist. Annals and Magazine of Natural History. London.

Ann. Mines, Paris. Annales des Mines. Paris.

Ann. Mus. du Congo. See *Belgium, Ann. Mus. du Congo.*

Ann. N.Y. Acad. Sci. Annals of the New York Academy of Sciences. New York.

Ann. Observ. Nat. Athènes. Annales de l'Observatoire National d'Athènes. Athens.

Ann. Paléont., Paris. Annales de Paléontologie. Paris.

Ann. Queensl. Mus. Annals of the Queensland Museum. Brisbane.

Ann. R. Scuola Agric. Portici. Annali della Regia Scuola superiore di Agricoltura di Portici. Portici.

Ann. R. Univ. toscane. Annuario delle Reali Università toscane. Pisa.

Ann. Rep. Am. Mus. Nat. Hist., N.Y. Annual Report of the American Museum of Natural History. New York.

Ann. Rep. Bristol Public Lib. Annual Report of the Bristol Public Library and Museum. Bristol.

Ann. Rep. Bur. Mines, Ontario. Annual Report of the Bureau of Mines. Ontario. See also *Ontario, Bur. Mines.*

Ann. Rep. Dep. Geol. Indiana. Annual Report of the Department of Geology and Natural Resources of Indiana. Indianapolis (Ind.).

Ann. Rep. Dep. Mines, B.C. Annual Report of the Department of Mines, British Columbia. Victoria (B.C.).

Ann. Rep. Dep. Mines, N.S.W. Annual Report of the Department of Mines and Agriculture, New South Wales. Sydney.

Ann. Rep. Dep. Mines, Queensl. Annual Report of the Under Secretary for Mines, Queensland. Brisbane. See also *Geol. Surv. Queensl., Publ.*

Ann. Rep. Dep. Mines, Victoria. See *Victoria, Dep. Mines.*

Ann. Rep. Geol. Comm. Cape Colony. Annual Report of the Geological Commission of the Cape Colony. Cape Town.

Ann. Rep. Geol. Surv. Canada. Annual Report of the Geological Survey of Canada. Ottawa. See also *Canada, Dep. Mines.*

Ann. Rep. Geol. Surv. Gt. Brit. Annual Report of the Geological Survey of Great Britain. London.

Ann. Rep. Geol. Surv. New Jersey. Annual Report of the Geological Survey of New Jersey. Trenton (N.J.).

Ann. Rep. Geol. Surv. N.Z. Annual Report of the Geological Survey of New Zealand. Wellington (N.Z.).

Ann. Rep. Geol. Surv. Queensl. Annual Progress Report of the Geological Survey of Queensland. Brisbane.

Ann. Rep. Geol. Surv. Transvaal. Annual Report of the Geological Survey of the Transvaal. Pretoria.

Ann. Rep. Geol. Surv. W. Austr. Annual Progress Report of the Geological Survey. Perth (W. Austr.).

Ann. Rep. Mus. Comp. Zool. Annual Report of the Assistant in Charge of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).

Ann. Rep. Nat. Hist. Surv. Minn. Annual Report of the Geological and Natural History Survey of Minnesota. Minneapolis (Minn.).

Ann. Rep. N.Y. State Mus. Annual Report of the New York State Museum. Albany. See also *N.Y. State Mus.*

Ann. Rep. Rhodesia Mus. Annual Report of the Rhodesia Museum. Bulawayo.

Ann. Rep. Roy. Cornwall Polyt. Soc. Annual Report of the Royal Cornwall Polytechnic Society. Falmouth.

Ann. Rep. Sec. Mines, Victoria. Annual Report of the Secretary of Mines Victoria. Melbourne.

Ann. Rep. Smiths. Inst. Rep. U.S. Nat. Mus. Annual Report of the Board of Regents of the Smithsonian Institution. Report of the United States National Museum. Washington (D.C.).

Ann. Rep. S. Afr. Mines Dep. Annual Report of the Mines Department of the Union of South Africa. Pretoria.

Ann. Rep. U.S. Geol. Surv. Annual Report of the United States Geological Survey. Washington (D.C.).

Ann. Rep. Washington Geol. Surv. Annual Report of the Washington Geological Survey. Olympia (Wash.).

Ann. Rep. Wellington Coll. Nat. Sci. Soc. Annual Report of the Wellington College Natural Science Society. Wellington College.

Ann. Rep. Yorks. Phil. Soc. Annual Report of the Yorkshire Philosophical Society. York.

Ann. S.Afr. Mus., Cape Town. Annals of the South African Museum. Cape Town.

Ann. sci. Acad. polyt. Porto. Annaes scientificos da Academia polytecnica do Porto. Coimbra.

Ann. Sci. nat. (Zool. & Paléont.). Annales des Sciences naturelles: Zoologie et Paléontologie. Paris.

Ann. Sci. Univ. Jassy. Annales scientifiques de l'Université de Jassy. Jassy.

Ann. Soc. géol. Belg., Liége. Annales de la Société géologique de Belgique. Liége.

Ann. Soc. géol. Nord. Annales de la Société géologique du Nord. Lille.

Ann. Soc. R. zool. & malac. Belg. Annales de la Société Royale zoologique et malacologique de Belgique. Brussels.

Anz. k. Akad. Wissensch., Wien. Anzeiger der kaiserlichen Akademie der Wissenschaften. Vienna.

Arch. Mus. Hist. nat. Lyon. Archives du Muséum d'Histoire naturelle. Lyon.

Arch. Naturk. Liv- Ehst- u. Kurlands, Dorpat. Archiv für die Naturkunde Liv- Ehst- und Kurlands. Naturforscher-Gesellschaft. Dorpat (Jurjew).

Arch. naturw. Landesd. Böhmen. Archiv der naturwissenschaftlichen Landesdurchforschung von Böhmen. Prague.

Arch. néerland. Sci. Archives des Sciences exactes et naturelles, publiées par la Société hollandaise des Sciences à Harlem. The Hague.

Ark. f. (*Bot.*; *Kemi, Min. & Geol.*; or *Zool.*) *K. svenska Vet.-Akad.* Arkiv för Botanik (&c.) utigfvet af K. svenska Vetenskaps-Akademien. Stockholm.

Athenæum. Athenæum. London.

Atti R. Acc. Lincei, Rendic. Atti della Reale Accademia dei Lincei, Rendiconti. Rome.

Atti R. Acc. Sci. Napoli. Atti della Reale Accademia delle Scienze fisiche e matematiche. Naples.

Atti R. Acc. Sci. Padova. Atti e Memorie della Reale Accademia di Scienze, Lettere ed Arti in Padova. Padua.

Atti R. Acc. Sci. Torino. Atti della Reale Accademia delle Scienze di Torino. Turin.

Atti Soc. ital. Progr. Sci. Atti della Società italiana per il Progresso delle Scienze. Rome.

Atti Soc. tosc. Sci. nat. Atti della Società toscana di Scienze naturali. Pisa.

Beitr. geol. Schweiz. Beiträge zur Geologie der Schweiz. (Schweizerische geotechnische Kommission.) Berne.

Beitr. Geophys., Leipzig. Beiträge zur Geophysik. Leipzig.

Beitr. Naturk. Preussens, K. phys.-ökon. Gesellsch., Königsberg. Beiträge zur Naturkunde Preussens. Königliche physikalisch-ökonomische Gesellschaft. Königsberg.

Beitr. Paläont. Œsterr.-Ung. Beiträge zur Paläontologie und Geologie Œsterreich-Ungarns und des Orients. Vienna.

Belgium, Ann. Mus. du Congo. BELGIUM, Annales du Musée du Congo belge. Brussels.

Ber. k.-sächs. Gesellsch. Wissensch., Leipzig. Bericht der königlich sächsischen Gesellschaft der Wissenschaften. Leipzig.

Ber. naturf. Gesellsch., Freiburg i. B. Berichte der naturforschenden Gesellschaft. Freiburg (Baden).

Ber. oberhess. Gesellsch. Nat.- Heilk. Bericht der oberhessischen Gesellschaft für Natur- und Heilkunde. Giessen.

Ber. oberrhein. geol. Ver. Bericht über die Versammlungen des oberrheinischen geologischen Vereins. Karlsruhe.

Ber. Senckenb. naturf. Gesellsch. Bericht der Senckenbergischen naturforschenden Gesellschaft. Frankfort-on-the-Main.

Berg- hütt. Jahrb., Wien. Berg- und hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben und Příbram und der königlich ungarischen Bergakademie zu Schemnitz. Vienna.

Bergens Mus. Aarb. Bergens Museums Aarbog (*or* Aarberetning). Bergen.

Bihang k. svenska Vet.-Akad. Handl. Bihang till kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.

Bol. Com. Mapa geol. España. Boletin de la Comisión del Mapa geológico de España. Madrid.

Bol. Comm. geogr. e geol. S. Paulo. Boletim da Commissão geographica e geologica do Estado de São Paulo. São Paulo (Brazil).
Bol. Ing. Minas, Perú. Boletín del Cuerpo de Ingenieros de Minas del Perú. Lima.
Bol. Inst. geogr. Argent. Boletín del Instituto geográfico Argentino. Buenos Aires.
Bol. Inst. geol. México. Boletín del Instituto geológico de México. Mexico.
Boll. R. Com. geol. Ital. Bollettino del Reale Comitato geologico d'Italia. Rome.
Bol. Soc. geogr. Lima. Boletín de la Sociedad geográfica de Lima. Lima.
Bol. Soc. Geogr. Lisboa. Boletim da Sociedade de Geographia de Lisboa. Lisbon.
Bol. Soc. Nac. Minería, Santiago. Boletín de la Sociedad Nacional de Minería. Santiago de Chile.
Boll. Soc. geol. ital. Bollettino della Società geologica italiana. Rome.
Brit. Assoc. Adv. Sci. British Association for the Advancement of Science. London.
British Columbia, Dep. Mines. British Columbia: Department of Mines. Victoria (B.C.).
Bull. Acad. Imp. Sci., St. Pétersb. Bulletin de l'Académie Impériale des Sciences. St. Petersburg.
Bull. Acad. Roy. Belg. Bulletins de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.
Bull. Am. Mus. Nat. Hist., N.Y. Bulletin of the American Museum of Natural History. New York.
Bull. Anglo-Egypt. Sudan Geol. Surv. Bulletin of the Anglo-Egyptian Sudan Geological Survey. Khartum.
Bull. Assoc. franç. Av. Sci. Bulletin de l'Association française pour l'Avancement des Sciences. Paris.
Bull. Buffalo Soc. Nat. Sci. Bulletin of the Buffalo Society of Natural Sciences. Buffalo (N.J.).
Bull. Bur. Mines, Ontario. Bulletin of the Bureau of Mines. Ontario.
Bull. Chicago Acad. Geol. Surv. Bulletin of the Chicago Academy of Science, Geological and Natural History Survey. Chicago (Ill.).
Bull. Com. géol. Russie. Bulletins du Comité géologique. St. Petersburg.
Bull. Comm. géol. Finlande. Bulletin de la Commission géologique de Finlande. Helsingfors.
Bull. Conn. Geol. & Nat. Hist. Surv. Bulletin of the Connecticut State Geological and Natural History Survey. Hartford (Conn.).
Bull. Geol. Inst. Univ. Upsala. Bulletin of the Geological Institution of the University of Upsala. Upsala.
Bull. Geol. Soc. Am. Bulletin of the Geological Society of America. Rochester (N.Y.).
Bull. Geol. Surv. Alabama. Bulletin of the Geological Survey of Alabama. University & Montgomery (Ala.).
Bull. Geol. Surv. Georgia. Bulletin of the Geological Survey of Georgia. Atlanta (Ga.). See also *Georgia, Geol. Surv.*
Bull. Geol. Surv. New Jersey. Bulletin of the Geological Survey of New Jersey. Trenton (N.J.).
Bull. Geol. Surv. N.Z. See *N.Z. Dep. Mines, Geol. Surv.*
Bull. Geol. Surv. Ohio. Bulletin of the Geological Survey of Ohio. Columbus (Ohio).
Bull. Geol. Surv. Queensl. Bulletin of the Geological Survey of Queensland (Department of Mines). Brisbane.
Bull. Geol. Surv. Victoria. Bulletin of the Geological Survey of Victoria. Melbourne.
Bull. Geol. Surv. W. Austr. Bulletin of the Geological Survey of Western Australia. Perth (W. Austr.).
Bull. Geol. Univ. Cal. Bulletin of the Department of Geology, University of California. Berkeley (Cal.).
Bull. Ill. Geol. Surv. Bulletin of the Illinois State Geological Survey. Urbana (Ill.).
Bull. Imp. Earthq. Comm. Tokyo. Bulletin of the Imperial Earthquake Commission. Tokyo.
Bull. Imp. Inst. Bulletin of the Imperial Institute. London.
Bull. Intern. Acad. Sci. Cracovie. Bulletin International de l'Académie des Sciences. Cracow.
Bull. Lab. de Géol. &c., Univ. Lausanne. Bulletin des Laboratoires de Géologie, Géographie physique, Minéralogie et Paléontologie de l'Université de Lausanne. Lausanne.
Bull. Mus. Comp. Zool. Bulletin of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).
Bull. Mus. Hist. nat. Paris. Bulletin du Muséum d'Histoire naturelle. Paris.
Bull. Mus. N.Z. Bulletin of the Dominion Museum, New Zealand. Wellington (N.Z.).

Bull. Mysore Geol. Dep. Bulletin of the Mysore Geological Department. Bangalore.
Bull. Nat. Hist. Soc. New Brunswick. Bulletin of the Natural History Society of New Brunswick. St. John (N.B.).
Bull. N.Y. State Mus. Bulletin of the New York State Museum. Albany (N.Y.).
Bull. Oklahoma Geol. Surv. Bulletin of the Oklahoma Geological Survey. Norman (Okl.).
Bull. School of Mines, Missouri Univ. Bulletin of the School of Mines and Metallurgy, Missouri University. Rolla (Mo.).
Bull. Serv. Carte géol. Algérie. Bulletin du Service de la Carte géologique de l'Algérie. Algiers.
Bull. Serv. Carte géol. France. Bulletin des Services de la Carte géologique de la France. Paris.
Bull. Soc. belge Géol., Brux. Bulletin de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.
Bull. Soc. franç. Min. Bulletin de la Société française de Minéralogie. Paris.
Bull. Soc. fribourg. Sci. nat. Bulletin de la Société fribourgeoise des Sciences naturelles. Fribourg.
Bull. Soc. géol. France. Bulletin de la Société géologique de France. Paris.
Bull. Soc. géol. Norm. Bulletin de la Société géologique de Normandie. Le Havre.
Bull. Soc. Hist. nat. Savoie. Bulletin de la Société d'Histoire naturelle de Savoie. Chambéry.
Bull. Soc. Hist. nat. Toulouse. Bulletin de la Société d'Histoire naturelle de Toulouse. Toulouse.
Bull. Soc. Imp. Nat. Moscou. Bulletin de la Société Impériale des Naturalistes de Moscou. Moscow.
Bull. Soc. Linn. Norm. Bulletin de la Société Linnéenne de Normandie. Caen.
Bull. Soc. oural. Sci. nat. Bulletin de la Société ouralienne d'Amateurs des Sciences naturelles. Ekaterinburg.
Bull. Soc. portugaise Sci. nat. Bulletin de la Société portugaise des Sciences naturelles. Lisbon.
Bull. Soc. R. malac. Belg. See *Ann. Soc. R. zool. & malac. Belg.*
Bull. Soc. sci. et méd. de l'Ouest, Rennes. Bulletin de la Société scientifique et médicale de l'Ouest. Rennes.
Bull. Soc. Spéléol. Paris. See *Spelunca.*
Bull. Soc. vaud. Sci. nat. Bulletin de la Société vaudoise des Sciences naturelles. Lausanne.
Bull. U.S. Geol. Surv. Bulletin of the United States Geological Survey. Washington. See also *U.S. Geol. Surv.*
Bull. U.S. Nat. Mus. Bulletin of the United States National Museum. Washington (D.C.).
Bull. Univ. Cal. Bulletin of the University of California. Berkeley (Cal.).
Bull. Univ. Kansas. See *Sci. Bull. Univ. Kansas.*
Bull. Univ. New Mex. Bulletin of the University of New Mexico. Albuquerque (N. Mex.).
Bull. Univ. Oklahoma. See *Oklahoma.*
Bull. Univ. Oregon. Bulletin of the University of Oregon. Eugen (Or.).
Bull. Univ. Wisc. Bulletin of the University of Wisconsin. Madison (Wis.).
Bull. Wash. Geol. Surv. Bulletin of the Washington Geological Survey. Olympia (Wash.).
Bull. Wisc. Geol. & Nat. Hist. Surv. Bulletin of the Wisconsin Geological and Natural History Survey. Madison (Wis.).
Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.
Canada, Dep. Mines. Canada: Department of Mines. Ottawa.
Centralbl. f. Min. Centralblatt für Mineralogie, Geologie und Paläontologie. Stuttgart.
Chem. News. Chemical News. London.
Coll. Guard. Colliery Guardian. London.
Colo. Coll. Publ. Colorado College Publications. Colorado Springs (Colo.).
Com. Mus. Nac. Buenos Aires. Comunicaciones del Museo Nacional de Buenos Aires. Buenos Aires.
Comm. Commiss. Serv. geol. Portugal. Communicacões da Commissão do Serviço geologico de Portugal. Lisbon.
Comm. geogr. e geol. S. Paulo. Commissão geographica e geologica de São Paulo. São Paulo (Brazil).
Congrès géol. Internat. Congrès géologique International. Stockholm.

C. R. Acad. Sci., Paris. Comptes-rendus hebdomadaires des Séances de l'Académie des Sciences. Paris.

C. R. Assoc. franç. Av. Sci. Comptes-rendus de l'Association française pour l'Avancement des Sciences. Paris.

C. R. Soc. géol. France. Comptes-rendus sommaire des Séances de la Société géologique de France. Paris.

C. R. Soc. helv. Sci. nat. Compte-rendu des Travaux de la Société helvétique des Sciences naturelles. Geneva.

C. R. Soc. Phys. Genève. Comptes-rendu de la Société de Physique de Genève. Geneva.

Dan. geol. Undersög. Danmarks geologiska Undersögelse. Copenhagen.

Denkschr. k. Akad. Wissensch. Wien. Denkschriften der kaiserlichen Akademie der Wissenschaften: Mathematisch-naturwissenschaftliche Classe. Vienna.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

Econ. Geol. Economic Geology. Lancaster (Pa.).

Econ. Papers, U.S. Geol. Surv. Economic Papers, United States Geological Survey. Washington (D.C.).

Econ. Proc. R. Dublin Soc. Economic Proceedings of the Royal Dublin Society. Dublin.

Egypt, Surv. Dep. Egypt Survey Department & Geological Survey. Cairo.

Erläut. geogn. Karte Bayern. Erläuterungen zu der geognostischen Karte des Königreichs Bayern. Munich.

Erläut. geol. Karte Baden. Erläuterungen zur geologischen Specialkarte des Grossherzogtums Baden. Heidelberg.

Erläut. geol. Karte Hessen. Erläuterungen zur geologischen Karte des Grossherzogtums Hessen. Darmstadt.

Erläut. geol. Karte Ungar. Erläuterungen zur geologischen Specialkarte der Länder der Ungarischen Krone. Budapest.

Erläut. geol. Karte Würt. Erläuterungen zur geologischen Specialkarte des Königreichs Württemberg. Stuttgart.

Essex Nat. Essex Naturalist, being the Journal of the Essex Field-Club. Stratford.

Expl. géol. Rég. aurif. Sibérie. Explorations géologiques dans les Régions aurifères de la Sibérie. St. Petersburg.

Fennia. Fennia: Bulletin de la Société de Géographie de Finlande. Helsingfors.

Field Columbian Mus. Field Columbian Museum Publications. Chicago (Ill.).

Földt. Közl. Földtani Közlöny. [Geological Magazine.] Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Journ. Geographical Journal (Royal Geographical Society). London.

Geol. Assoc. Geologists' Association. London.

Geol. & Nat. Hist. Surv. Minn. Geological and Natural History Survey of Minnesota. St. Paul (Minn.).

Geol. Fören. Stockh. Förh. Geologiska Föreningens i Stockholm Förhandlingar. Stockholm.

Geol. Mag. Geological Magazine. London.

Geol. Rundsch., Leipzig. Geologische Rundschau: Zeitschrift für allgemeine Geologie. Leipzig.

Geol. Surv. Canada. Contr. Canad. Palæont. Geological Survey of Canada: Contributions to Canadian Palæontology. Ottawa.

Geol. Surv. N. Jersey. Geological Survey of New Jersey. Trenton (N.J.).

Geol. Surv. Queensl., Publ. Geological Survey of Queensland: Publications. Brisbane. See also *Ann. Rep. Dep. Mines, Queensl.*

Geol. u. Paläont. Abh., Jena. Geologische und Paläontologische Abhandlungen. Jena.

Geol. Zentralbl. Geologisches Zentralblatt. Leipzig.

Giorn. Geol. prat. Giornale di Geologia pratica. Catania.

'Glasnik' Soc. Hist. nat. Croatica. Journal of the Natural History Society of Croatia. Agram.

Great Britain & Ireland. Home Office. Mines & Quarries. General Report and Statistics. London.

Hull Mus. Publ. Hull Museum Publications. Hull.

Illinois Geol. Surv. Illinois Geological Survey. Urbana (Ill.). See also *Bull. Ill. Geol. Surv.*

Imp. Coll. Sci., London. Imperial College of Science and Technology. London.

Indian Engin. Indian Engineering. Calcutta.

Internat. Cat. Sci. Lit. International Catalogue of Scientific Literature. London.

Iowa Geol. Surv. Iowa Geological Survey. Des Moines (Iowa).

Irish Nat. Irish Naturalist. Dublin.

Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Batavia.

Jaarversl. Rijksop. Delfstoff. Amsterdam. Jaarverslag der Rijksopsporing van Delfstoffen. Amsterdam.

Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen. Freiberg.

Jahrb. k.-k. geol. Reichsanst. Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.

Jahrb. k.-preuss. geol. Landesanst. Jahrbuch der königlich preussischen geologischen Landesanstalt. Berlin.

Jahrb. k.-ung. geol. Anst. Jahrbuch der königlich ungarischen geologischen Anstalt. Budapest.

Jahrb. nassauisch. Ver. f. Naturk. Jahrbücher des nassauischen Vereins für Naturkunde. Wiesbaden.

Jahrb. Schw.-Alpenclub. Jahrbuch des Schweizer-Alpenclubs. Berne.

Jahresb. k.-ung. geol. Anst. Jahresbericht der königlich ungarischen geologischen Anstalt. Budapest.

Jahresb. naturh. Gesellsch. Hannover. Jahresbericht der naturhistorischen Gesellschaft zu Hannover. Hanover.

Jahresb. naturh. Gesellsch. Nürnberg. Jahresbericht der naturhistorischen Gesellschaft. Nürnberg.

Jahresb. niedersächs. geol. Ver. Jahresbericht des niedersächsischen geologischen Vereins. Hanover.

Jahresb. Ver. Naturw. Braunschweig. Jahresbericht des Vereins für Naturwissenschaft zu Braunschweig. Brunswick.

Jahresh. Ver. Naturk. Württ. Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg. Stuttgart.

Journ. Acad. Nat. Sci. Philad. Journal of the Academy of Natural Sciences, Philadelphia.

Journ. Asiat. Soc. Bengal. Journal and Proceedings of the Asiatic Society of Bengal. Calcutta.

Journ. Bombay Branch R. Asiat. Soc. Journal of the Bombay Branch of the Royal Asiatic Society. Bombay.

Journ. Canad. Mining Inst. Journal of the Canadian Mining Institute. Ottawa.

Journ. Ceylon Branch R. Asiat. Soc. Journal of the Ceylon Branch of the Royal Asiatic Society. Colombo.

Journ. Chem. Soc. Journal of the Chemical Society. London.

Journ. China Branch R. Asiat. Soc. Journal of the China Branch of the Royal Asiatic Society. Shanghai.

Journ. Cinc. Soc. Nat. Hist. Journal of the Cincinnati Society of Natural History. Cincinnati (Ohio).

Journ. Coll. Sci. Tokyo. Journal of the College of Science, Imperial University. Tokyo.

Journ. Conch., Paris. Journal de Conchyliologie. Paris.

Journ. Geol., Chicago. Journal of Geology. Chicago (Ill.).

Journ. Iron & Steel Inst. Journal of the Iron and Steel Institute. London.

Journ. Linn. Soc. Journal of the Linnean Society. London.

Journ. Northants Nat. Hist. Soc. Journal of the Northamptonshire Natural History Society and Field-Club. Northampton.

Journ. R. Agric. Soc. Journal of the Royal Agricultural Society. London.

Journ. R. Inst. Cornwall. Journal of the Royal Institution of Cornwall. Truro.

Journ. R. Micr. Soc. Journal of the Royal Microscopical Society. London.

Journ. Roy. Soc. N.S.W. Journal and Proceedings of the Royal Society of New South Wales. Sydney.

Journ. Soc. Arts. Journal of the Royal Society of Arts. London.

Journ. Vict. Inst., London. Journal of the Transactions of the Victoria Institute. London.

Journ. Wash. Acad. Sci. Journal of the Washington Academy of Sciences. Baltimore (Ind.).

Journ. & Proc. Hamilton Sci. Assoc. (Canada). Journal and Proceedings of the Hamilton Scientific Association. Hamilton (Canada).

K. danske Vidensk.-Selsk. Afh. Kongelige danske Videnskabernes Selskabs naturvidenskablig og mathematisk Afhandlinger. Copenhagen.

K. danske Vidensk. Selsk. Skrift. Kongelige danske Videnskabernes Selskabs Skrifter. Copenhagen.

K. svenska Vet.-Akad. Årsbok. Kongliga svenska Vetenskaps-Akademiens Årsbok. Stockholm.

K. svenska Vet.-Akad. Handl. Kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.

Kansas Univ. Sci. Bull. See *Sci. Bull. Univ. Kansas.*

Kentucky Geol. Surv. Kentucky Geological Survey. Report of Progress. Lexington (Ky.). (See also *Bull. Ky. Geol. Surv.*)

Knowledge. Knowledge. London.

Lond. Edinb. Dubl. Phil. Mag. London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. London.

Maryland Geol. Surv. Maryland Geological Survey. Baltimore (Md.).

Matér. Carte géol. Suisse. Matériaux pour la Carte géologique de la Suisse. Commission géologique. Berne.

Mater. Geol. Russ. Materialien zur Geologie Russlands. Herausgegeben von der kaiserlichen mineralogischen Gesellschaft. St. Petersburg.

Meddel. dansk geol. Foren. Meddelelser fra dansk geologisk Forening. Copenhagen.

Meddel. geogr. Fören. Finland. Meddelanden af geografiska Föreningen i Finland. Helsingfors.

Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de Geologiske og Geographiske Undersögelser i Grönland. Copenhagen.

Meddel. Upsala Univ. Min.-geol. Inst. Meddelanden från Upsala Universitets Mineralogisk-geologiska Institut. Stockholm.

Mededeel. Rijksop. Delfstof. Mededeelingen van de Rijksopsporing van Delfstoffen. Amsterdam.

Mém. Acad. Imp. Sci. St. Pétersb. Mémoires de l'Académie Impériale des Sciences. St. Petersburg.

Mém. Acad. Roy. Belg. Mémoires de l'Académie Royale de Belgique. Brussels.

Mém. Acad. Sci. Dijon. Mémoires de l'Académie des Sciences, Arts et Belles-Lettres de Dijon.

Mém. Acad. Stanislas. Mémoires de l'Académie de Stanislas. Nancy.

Mem. Am. Acad. Arts & Sci. Memoirs of the American Academy of Arts and Sciences. Cambridge (Mass.).

Mem. Am. Mus. Nat. Hist., N.Y. Memoirs of the American Museum of Natural History. New York.

Mem. Asiat. Soc. Bengal. Memoirs of the Asiatic Society of Bengal. Calcutta.

Mem. Carnegie Mus., Pittsb. Memoirs of the Carnegie Museum. Pittsburg (Pa.).

Mem. Carta geol. Ital. Memorie descrittive della Carta geologica d'Italia. (R. Ufficio geologico.) Rome.

Mém. Com. géol. Russie. Mémoires du Comité géologique. St. Petersburg.

Mem. Conn. Acad. Arts & Sci. Memoirs of the Connecticut Academy of Arts and Sciences. New Haven (Conn.).

Mem. Geol. Surv. Canada. See *Canada, Dep. Mines, Geol. Surv.*

Mem. Geol. Surv. England & Wales. Memoirs of the Geological Survey of England and Wales. London.

Mem. Geol. Surv. India. Palæont. Indica. Memoirs of the Geological Survey of India: Palæontographica Indica. Calcutta.

Mem. Geol. Surv. Ireland. Memoirs of the Geological Survey of Ireland. Dublin.

Mem. Geol. Surv. N.S.W. Memoirs of the Geological Survey of New South Wales. Sydney.

Mem. Geol. Surv. N.Y. Memoirs of the Geological Survey of the State of New York. State Museum. University of the State of New York. Albany (N.Y.).

Mem. Geol. Surv. Scotland. Memoirs of the Geological Survey of Scotland. Edinburgh.

Mem. Geol. Surv. Transvaal. Memoirs of the Geological Survey of the Transvaal. Pretoria.

Mem. Geol. Surv. U.K. Memoirs of the Geological Survey of the United Kingdom. London, &c.

Mem. Geol. Surv. Victoria. Memoirs of the Geological Survey of Victoria. Melbourne.

Mem. I. Geol. Surv. Japan. Memoirs of the Imperial Geological Survey of Japan. Tokyo.

Mem. Indian Mus., Calcutta. Memoirs of the Indian Museum. Calcutta.

Mem. Manch. Lit. Phil. Soc. Memoirs and Proceedings of the Manchester Literary and Philosophical Society. Manchester.

Mem. Mus. Comp. Zool. Memoirs of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).

Mém. Mus. R. Hist. nat. Belg. Mémoires du Musée Royal d'Histoire naturelle de Belgique. Brussels.

Mem. Mysore Geol. Dep. Memoirs of the Mysore Geological Department. Bangalore.

Mem. Nat. Mus., Melbourne. Memoirs of the National Museum. Melbourne.

Mem. N.Y. Acad. Sci. Memoirs of the New York Academy of Sciences. New York.

Mem. N.Y. State Mus. See *N.Y. State Mus.*

Mem. R. Acad. Cienc., Madrid. Memorias de la Real Academía de Ciencias exactas, físicas y naturales. Madrid.

Mem. R. Acc. Lincei. Memorie della Reale Accademia dei Lincei. Rome.

Mem. R. Acc. Sci. Torino. Memorie della Reale Accademia delle Scienze. Turin.

Mem. R. Astron. Soc. Memoirs of the Royal Astronomical Society. London.

Mem. R. Ist. lomb. Memorie del Reale Istituto lombardo di Scienze e Lettere. Milan.

Mem. R. Soc. S. Austr. Memoirs of the Royal Society of South Australia. Adelaide.

Mém. Soc. belge Géol., Brux. Mémoires de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.

Mem. Soc. cient. 'Ant. Alzate.' Memorias y Revista de la Sociedad científica 'Antonio Alzate.' Mexico.

Mém. Soc. fribourg. Sci. nat., Géol. et Géogr. Mémoires de la Société fribourgeoise des Sciences naturelles. Fribourg.

Mém. Soc. géol. Belg., Liége. Mémoires de la Société géologique de Belgique. Liége.

Mém. Soc. géol. France (Paléont.). Mémoires de la Société géologique de France. Paléontologie. Paris.

Mém. Soc. géol. Nord. Mémoires de la Société géologique du Nord. Lille.

Mém. Soc. Linn. Norm. Mémoires de la Société Linnéenne de Normandie. Caen.

Mém. Soc. Nat. Kiev. Mémoires de la Société des Naturalistes. Kiev.

Mém. Soc. paléont. suisse. Mémoires de la Société paléontologique suisse. Geneva, &c.

Mém. Soc. Phys. & Hist. nat. Genève. Mémoires de la Société de Physique et d'Histoire naturelle de Genève. Geneva.

Mém. Soc. R. malac. Belg. See *Ann. Soc. R. zool. & malac. Belg.*

Mém. Soc. Roy. Sci. Liége. Mémoires de la Société Royale des Sciences. Liége.

Mém. Soc. Spéléol., Paris. See *Spelunca.*

Mem. Univ. Cal. Memoirs of the University of California. Berkeley (Cal.).

Min. Mag. The Mineralogical Magazine, and Journal of the Mineralogical Society. London.

Min. petr. Mitth. Mineralogische und petrographische Mittheilungen. Vienna.

Mines & Minerals, Scranton. Mines and Minerals. Scranton (Pa.).

Mining Journ. Mining Journal. London.

Minutes of Proc. Inst. C.E. Minutes of Proceedings of the Institution of Civil Engineers. London.

Missouri Bur. Geol. & Mines. Missouri Bureau of Geology and Mines. Jefferson City & Rolla (Mo.).

Missouri Univ. School of Mines. See *Bull. School of Mines, Missouri Univ.*

Mitth. badisch. geol. Landesanst. Mittheilungen der grossherzoglich badischen geologischen Landesanstalt. Heidelberg.

Mitth. Erdbeben-Komm. k. Akad. Wissensch., Wien. Mittheilungen der Erdbeben-Kommission der kaiserlichen Akademie der Wissenschaften, Wien. Vienna.

Mitth. geol. Abtheil. k. würt. Landes. Mittheilungen der geologischen Abtheilung des k. württembergischen Landesamtes. Stuttgart.

Mitth. geol. Gesellsch. Wien. Mittheilungen der geologischen Gesellschaft in Wien. Vienna.

Mitth. geol. Landesanst. Elsass-Lothr. Mittheilungen der geologischen Landesanstalt von Elsass-Lothringen. Strasburg.

Mitth. Jahrb. k.-ung. geol. Anst. Mittheilungen aus dem Jahrbuche der königlich ungarischen geologischen Anstalt. Budapest.

Mitth. Min. Inst. Kiel. Mittheilungen aus dem Mineralogischen Institut der Universität Kiel.

Mitth. naturf. Gesellsch., Bern. Mittheilungen der naturforschenden Gesellschaft. Berne.

Mitth. nat. Ver. Steiermark. Mittheilungen des naturwissenschaftlichen Vereins für Steiermark. Graz.

Mitth. staatl. Bohrverw. Niederl. Mittheilungen der staatlichen Bohrverwaltung in den Niederlanden (Rijksopsporing van Delfstoffen). Amsterdam & The Hague. See also *Jaarversl.*

Mitth. Ver. Erdk., Dresden. Mittheilungen des Vereins für Erdkunde. Dresden.

Monatsb. deutsch. geol. Gesellsch. Monatsberichte der deutschen geologischen Gesellschaft. Berlin. See also *Zeitschr.*

Monogr. Palæont. Soc. Monographs of the Palæontographical Society. London.

Monogr. Ray Soc. Monographs of the Ray Society. London.

Monogr. U.S. Geol. Surv. Monographs of the United States Geological Survey. Washington (D.C.).

Monthly Circ. Kent Coal Concess. Monthly Circular, Kent Coal Concessions. London.

Mus. Lundii Afh. E Museo Lundii. Afhandlinger. Copenhagen.

Mysore Geol. Dep. Mysore Geological Department. Bangalore.

Natal Rep. Mining. Report on the Mining Industry of Natal. Pietermaritzburg.

Naturalist, Hull. The Naturalist. Hull.

Nature. Nature. London.

Naturen, Bergen. Naturen. Bergen.

Nat. Verh. Holland. Maat. Wet. Haarlem. Natuurkundige Verhandelingen van de Hollandsche Maatschappij der Wetenschappen. Haarlem.

Neue Denkschr. schweiz. Gesellsch. Naturw. Neue Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Basel, &c.

N. J. f. Min. Neues Jahrbuch für Mineralogie, Geologie und Paläontologie. Stuttgart.

Norges Geol. Undersök. Norges Geologiske Undersökelse. Christiania.

Norges Landbrukshöiskole. Norges Landbrukshöiskole. Beretning. Christiania.

Norsk geol. Tidsskr. Norsk geologisk Tidsskrift, udgivet af Norsk geologisk Forening. Christiania.

Notice expl. Carte géol. Suisse. Notice explicative de la Carte géologique de la Suisse. Berne.

Notizbl. Ver. f. Erdk. Darmstadt. Notizblatt des Vereins für Erdkunde und der grossherzoglich hessischen geologischen Landesanstalt. Darmstadt.

Nouv. Arch. Mus. Hist. nat. Paris. Nouvelles Archives du Muséum d'Histoire naturelle. Paris.

Nouv. Mém. Soc. belge Géol. Nouveaux Mémoires de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.

Nouv. Mém. Soc. Imp. nat. Moscou. Nouveaux Mémoires de la Société Impériale des Naturalistes. Moscow.

Nova Acta Acad. Cæs. Leop.-Car. Nova Acta Academiæ Cæsareæ Leopoldino-Carolinæ Germanicæ Naturæ Curiosorum. Halle. See also *Abh. k. Leop.-Car. deutsch. Akad. Naturf.*

Nova Scotia, Dep. Mines. Nova Scotia Department of Mines. Halifax (N.S.).

N.S.W. Dep. Mines. New South Wales Department of Mines. Sydney.

N.Y. State Mus. New York State Museum. Albany (N.Y.).

Nyt Magazin. Nyt Magazin for Naturvidenskaberne. Christiania.

N.Z. Dep. Mines, Geol. Surv. New Zealand Department of Mines. Geological Survey. Wellington (N.Z.).

Occ. Papers, Boston Nat. Hist. Soc. Occasional Papers of the Boston Natural History Society. Boston (Mass.).

Öfvers. K. Vet.-Akad. Förh. Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar. Stockholm.

Oklahoma Univ. Bull. Oklahoma University Research Bulletin. Norman (Okla.).

Ontario, Bur. Mines. See *Bull. Bur. Mines* & also *Ann. Rep. Bur. Mines, Ont.*

Ottawa Nat. Ottawa Naturalist. Ottawa.

Overs. K. danske Vidensk.-Selsk. Forh. Oversigt over det Kongelige danske Videnskabernes-Selskabs Forhandlinger. Copenhagen.

Palæobot. Lit., Jena. Palæobotanische Literatur. Jena.

Paläont. Abh. Jena. Paläontologische Abhandlungen. Jena.

Palæont. Univ. Palæontologia Universalis. 8vo. Paris.

Palæontographica. Palæontographica. Stuttgart.

Palæontographica italica. Palæontographica italica. Pisa.

Papers & Proc. Roy. Soc. Tasm. Papers and Proceedings of the Royal Society of Tasmania. Hobart.

Papers & Rep. Min. & Mining, N.Z. Papers and Reports relating to Minerals and Mining, New Zealand. Wellington (N.Z.).

Parerg. Inst. geol. Mex. Parergones del Instituto geológico de México. Mexico.

Perak Gov. Gaz. Perak Government Gazette. Taiping.

Peterm. Mitth. Petermann's Mittheilungen. Gotha.

Phil. Trans. Roy. Soc. Philosophical Transactions of the Royal Society. London.

Philippine Journ. Sci. Philippine Journal of Science. (Bureau of Science.) Manila.

Photogr. Journ. Photographic Journal. (Royal Photographic Society.) London.

Princeton Univ. Rep. Princeton University. Reports of Expeditions. Princeton (N.J.).

Proc. Acad. Nat. Sci. Philad. Proceedings of the Academy of Natural Sciences. Philadelphia (Pa.).

Proc. Am. Acad. Arts & Sci. Proceedings of the American Academy of Arts and Sciences. Boston (Mass.).

Proc. Am. Phil. Soc. Proceedings of the American Philosophical Society. Philadelphia (Pa.).

Proc. Asiatic Soc. Bengal. Proceedings of the Asiatic Society of Bengal. Calcutta.

Proc. Austral. Inst. M. E. Proceedings of the Australasian Institute of Mining Engineers. Melbourne (Vict.).

Proc. Bath Nat. Hist. F.-C. Proceedings of the Bath Natural History and Antiquarian Field-Club. Bath.

Proc. Belfast Nat. F.-C. Proceedings of the Belfast Naturalists' Field-Club. Belfast.

Proc. Boston Soc. Nat. Hist. Proceedings of the Boston Society of Natural History. Boston (Mass.).

Proc. Bristol Nat. Soc. Proceedings of the Bristol Naturalists' Society. Bristol.

Proc. Cal. Acad. Sci. Proceedings of the California Academy of Sciences. San Francisco (Cal.).

Proc. Cambridge Phil. Soc. Proceedings of the Cambridge Philosophical Society. Cambridge.

Proc. Canad. Inst. Proceedings of the Canadian Institute. Toronto.

Proc. Chem. Soc. Proceedings of the Chemical Society. London.

Proc. Colo. Sci. Soc. Proceedings of the Colorado Scientific Society. Denver (Colo.).

Proc. Cotteswold Nat. F.-C. Proceedings of the Cotteswold Naturalists' Field-Club. Gloucester.

Proc. Davenport Acad. Nat. Sci. Proceedings of the Davenport Academy of Natural Science. Davenport (Iowa).

Proc. Dorset Nat. Hist. F.-C. Proceedings of the Dorset Natural History and Antiquarian Field-Club. Dorchester.

Proc. Geol. Assoc. Proceedings of the Geologists' Association. London.

Proc. Geol. Soc. S.A. Proceedings of the Geological Society of South Africa. Johannesburg.

Proc. Indiana Acad. Sci. Proceedings of the Indiana Academy of Sciences. Indianapolis (Ind.).

Proc. Linn. Soc. Proceedings of the Linnean Society. London.

Proc. Linn. Soc. N.S.W. Proceedings of the Linnean Society of New South Wales. Sydney.

Proc. Lit. Phil. Soc. Liverp. Proceedings of the Literary and Philosophical Society of Liverpool. Liverpool.

Proc. Liverp. Geol. Soc. Proceedings of the Liverpool Geological Society. Liverpool.

Proc. Malacol. Soc. Proceedings of the Malacological Society. London.

Proc. Midland Inst. M. E. Proceedings of the Midland Institute of Mining, Civil, and Mechanical Engineers. Newcastle-upon-Tyne.

Proc. N.Z. Inst. Proceedings of the New Zealand Institute. Wellington (N.Z.).

Proc. Portland Soc. Nat. Hist., Maine. Proceedings of the Portland Society of Natural History. Portland (Maine).

Proc. Prehist. Soc. E. Anglia. Proceedings of the Prehistoric Society of East Anglia. Norwich & London.

Proc. Rhodesia Sci. Assoc. Proceedings of the Rhodesia Scientific Association. Bulawayo.

Proc. Rochester Acad. Sci. Proceedings of the Rochester Academy of Science. Rochester (N.Y.).

Proc. Roy. Inst. Gt. B. Proceedings of the Royal Institution of Great Britain. London.

Proc. Roy. Irish Acad. Proceedings of the Royal Irish Academy. Dublin.

Proc. Roy. Phys. Soc. Edinb. Proceedings of the Royal Physical Society of Edinburgh. Edinburgh.

Proc. Roy. Soc. Proceedings of the Royal Society. London.

Proc. Roy. Soc. Edinb. Proceedings of the Royal Society of Edinburgh. Edinburgh.

Proc. Roy. Soc. Tasm. Proceedings of the Royal Society of Tasmania. Hobart. See ***Papers & Proc.***

Proc. Roy. Soc. Victoria. Proceedings of the Royal Society of Victoria. Melbourne.

Proc. Soc. Bibl. Arch. Proceedings of the Society of Biblical Archæology. London.

Proc. S. Wales Inst. Engin. Proceedings of the South Wales Institute of Engineers. Cardiff.

Proc. U.S. Nat. Mus. Proceedings of the United States National Museum. Washington (D.C.).

Proc. Univ. Durham Phil. Soc. Proceedings of the University of Durham Philosophical Society. Newcastle-upon-Tyne.

Proc.-verb. Soc. R. malac. Belg. Procès-verbaux des Séances de la Société Royale malacologique de Belgique. Brussels.

Proc. Wash. Acad. Sci. Proceedings of the Washington Academy of Sciences. Washington (D.C.).

Proc. Yorks. Geol. Soc. Proceedings of the Yorkshire Geological Society. Halifax.

Proc. Zool. Soc. London. Proceedings of the Zoological Society. London.

Proc. & Trans. Croydon Microsc. & Nat. Hist. Soc. Proceedings and Transactions of the Croydon Microscopical and Natural History Society. Croydon.

Proc. & Trans. N.S. Inst. Sci. Proceedings and Transactions of the Nova Scotia Institute of Science. Halifax (N.S.).

Proc. & Trans. Roy. Soc. Canada. Proceedings and Transactions of the Royal Society of Canada. Ottawa.

Prof. Papers, U.S. Geol. Surv. Professional Papers, United States Geological Survey. Washington (D.C.).

Publ. Carnegie Mus. Publications of the Carnegie Museum. Pittsburg (Pa.).

Publ. Earthq. Comm. Tokyo. Publications of the Earthquake Investigations Committee in Foreign Languages. Tokyo.

Publ. k.-ung. geol. Reichsanst. Publikationen der königlich-ungarischen geologischen Reichsanstalt. Budapest.

Q. J. G. S. Quarterly Journal of the Geological Society. London.

Q. J. R. Met. Soc. Quarterly Journal of the Royal Meteorological Society. London.

Quarry. The Quarry. London.

Queensl., Dep. Mines. Queensland: Department of Mines. Brisbane.

Ray Soc. See *Monographs.*

Rec. Geol. Surv. India. Records of the Geological Survey of India. Calcutta.

Rec. Geol. Surv. N.S.W. Records of the Geological Survey of New South Wales. Sydney.

Rec. Geol. Surv. Victoria. Records of the Geological Survey of Victoria. Melbourne.

Rec. Indian Mus. Records of the Indian Museum. Calcutta.

Rec. London & W. Country Chamber of Mines. Record of the London and West-Country Chamber of Mines. London.

Rec. Mysore Geol. Dep. Records of the Mysore Geological Department. Bangalore.

Rec. W. Austral. Mus. Perth. Records of the Western Australian Museum and Art Gallery. Perth (W. Austral.).

Rendic. e Mem. R. Acc. Sci. Acireale. Rendiconti e Memorie della Reale Accademia di Scienze, Lettere ed Arti. Acireale.

Rendic. R. Acc. Sci. Napoli. Rendiconti della Reale Accademia delle Scienze fisiche e matematiche. Naples.

Rendic. R. Ist. lomb. Reale Istituto lombardo di Scienze e Lettere: Rendiconti. Milan.

Rep. Austral. Assoc. Adv. Sci. Report of the Australasian Association for the Advancement of Science. Sydney (N.S.W.).

Rep. Bristol Mus. & Art Gallery. Report on the Bristol Museum and Art Gallery. Bristol.

Rep. Brit. Assoc. Report of the British Association for the Advancement of Science. London.

Rep. Croydon Microsc. Club. See *Proc. & Trans. Croydon Microsc. & Nat. Hist. Soc.*

Rep. Dep. Mines, India. Report of the Chief Inspector of Mines in India, Department of Mines. Calcutta.

Rep. Dep. Mines, N.S. Report of the Department of Mines, Nova Scotia. Halifax (N.S.).

Rep. Dep. Mines, Tasm. Report of the Secretary of the Department of Mines. Hobart.

Rep. Dep. Mines, Transvaal. See *Transvaal Mines Dep.*

Rep. Dep. Mines. W. Austral. Report of the Department of Mines, Western Australia. Perth (W. Austral.).

Rep. Geol. Surv. Louisiana. Report of the Geological Survey of Louisiana. Bâton Rouge (La.).

Rep. Geol. Surv. Newfoundland. Report of the Geological Survey of Newfoundland. St. John's (N.F.).

Rep. Geol. Surv. Transvaal. See *Transvaal Mines Dep., Rep. Geol. Surv.*

Rep. Geol. Surv. U.K. & Mus. of Pract. Geol. Report of the Geological Survey of the United Kingdom and of the Museum of Practical Geology. London.

Rep. Inst. Mines & Forests, Brit. Guiana. Report of the Council of the Institute of Mines and Forests on the Gold and Forest-Industries of British Guiana. Georgetown (Demerara).

Rep. Leicester Mus. Report of the Committee to the Town Council, Leicester Corporation Museum and Art Gallery. Leicester.

Rep. Mich. Acad. Sci. Report of the Michigan Academy of Science. Lansing (Mich.).

Rep. Rhodesia Chamb. Mines. Report of the Rhodesia Chamber of Mines. Bulawayo.

Rep. Rugby School Nat. Hist. Soc. Report of the Rugby School Natural History Society. Rugby.

Rep. S. Afr. Assoc. Adv. Sci. Report of the South African Association for the Advancement of Science. Cape Town. See also *S. Afr. Journ. Sci.*

Rep. S. Afr. Mus. Report of the South African Museum. Cape Town.

Rep. S.E. Union Sci. Soc. See *Trans. S.E. Union Sci. Soc.*

Rep. Surv. Dep. Egypt. Report on the Work of the Survey Department. Cairo.

Rep. U.S. Dep. Agric. Report of the United States Department of Agriculture. Washington (D.C.).

Rep. U.S. Nat. Mus. Report of the United States National Museum. Washington (D.C.).

Rep. Univ. Geol. Surv. Kansas. Reports of the University Geological Survey of Kansas. Topeka (Kan.). See also *Ann. Bull. Min. Resources, Kansas.*

Rep. & Proc. Belfast Nat. Hist. Soc. Report and Proceedings of the Belfast Natural History and Philosophical Society. Belfast.

Rep. & Trans. Devon. Assoc. Adv. Sci. See *Trans. Devon. Assoc.*

Rev. Cienc., Lima. Revista de Ciencias. Lima.

Rev. critique de Paléozool. Revue critique de Paléozoologie. Paris.

Rev. Mus. La Plata. Revista del Museo de la Plata. La Plata.

Rev. R. Acad. Cienc. Madrid. Revista de la Real Academía de Ciencias exactas, físicas y naturales. Madrid.

Rev. Sci., Paris. Revue Scientifique. Paris.

Rev. Soc. sci. São Paulo. Revista da Sociedade scientifica de São Paulo. São Paulo.

Rhodesia Mus. Rhodesia Museum. Bulawayo.

Riv. ital. Paleont. Rivista italiana di Paleontologia. Catania.

Riv. Min. e Crist. ital., Padova. Rivista di Mineralogia e Cristallografia italiana. Padua.

Rochester Nat. Rochester Naturalist. Rochester.

Rozpr. Akad. Umiej. Krakow. Rozprawy Wydzialu matematyczno-przyrodniczego Akademii Umiejetnošci. Cracow.

S. Afr. Journ. Sci. South African Journal of Science, being the organ of the South African Association for the Advancement of Science. Cape Town.

Samml. geol. R.-Mus. Leiden. Sammlungen des geologischen Reichs-Museums in Leiden. Leyden.

Sarawak Mus. Journ. Sarawak Museum Journal. Singapore.

Schr. Gesellsch. Naturw. Marburg. Schriften der Gesellschaft zur Beförderung der gesammten Naturwissenschaften zu Marburg. Marburg.

Schr. Naturf.-Gesellsch. Univ. Dorpat. Schriften herausgegeben von der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.

Schr. physik.-ökonom. Gesellsch. Königsb. Schriften der physikalisch-ökonomischen Gesellschaft. Königsberg in Pr.

Sci. Bull. Univ. Kansas. Science Bulletin of the University of Kansas. Lawrence (Kan.).

Sci. Proc. R. Dublin Soc. Scientific Proceedings of the Royal Dublin Society. Dublin.

Sci. Trans. R. Dublin Soc. Scientific Transactions of the Royal Dublin Society. Dublin.

Science. Science. New York.

Scot. Geogr. Mag. Scottish Geographical Magazine. (Royal Scottish Geographical Society.) Edinburgh.

Sitz. Gesellsch. naturf. Freunde, Berlin. Sitzungsberichte der Gesellschaft naturforschender Freunde. Berlin.

Sitz. k. Akad. Wissensch., Wien. Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Vienna.

Sitz. k.-bayr. Akad. Wissensch. Sitzungsberichte der mathematisch-physikalischen Classe der königlich-bayerischen Akademie der Wissenschaften. Munich.

Sitz. k.-preuss. Akad. Wissensch., Berlin. Sitzungsberichte der königlich preussischen Akademie der Wissenschaften. Berlin.

Sitz. Naturf.-Gesellsch. Dorpat. Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.

Sitz. naturh. Ver. preuss. Rheinl. Sitzungsberichte herausgegeben vom naturhistorischen Verein der preussischen Rheinlande und Westfalens. Bonn.

Sitz. niederrhein. Gesellsch. Nat. &c., Bonn. Sitzungsberichte der niederrheinischen Gesellschaft für Natur- und Heilkunde zu Bonn. Bonn. See *Verh. naturh. Ver. preuss. Rheinl.*

Sitz. u. Abh. Gesellsch. 'Isis.' Sitzungsberichte und Abhandlungen der naturwissenschaftlichen Gesellschaft 'Isis' in Dresden. Dresden.

Smiths. Contrib. Knowledge. Smithsonian Contributions to Knowledge. Washington (D.C.).

Smiths. Miscell. Coll. Smithsonian Miscellaneous Collections. Washington (D.C.).

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ERRATA.

P. 24, *line* 7 *from top, for* 'Wellheimer' *read* 'Weilheimer.'

P. 24, *lines* 9 & 10 *from bottom, for* 'Widmanstätten' *read* 'Widmannstätten.'

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—— ——, Tasmania.—*See* TASMANIA, Dep. Mines, 1–3.
Argentina (S. Am.).—Ameghino, F., 1–4; Bado, A. A.; Lehmann-Nitsche, R.; Romero, A. A., 1 & 2; Rovereto, G., 2.
Argiope.—Nielson, K. B.
Argolis (Greece).—*See* Greece.

Argyllshire (Scotland). — Bailey, E. B.

Arid regions, erosional processes in.—Bean, W.; Keyes, C. R., 1 & 2; Rich, J. L.

Arizona (U.S.A.).—Bancroft, H.; Berringer, D. M.; Blake, W. P.; Guild, F. N.; Robinson, H. H.; Sjœgren, H.

Arkansas (U.S.A.).—Girty, G. H., 1 & 4; Purdue, A. H.

Arkose.—Fourmarier, P., 4.

Arpojaure, Lake (Norway). — Fries, T. C. E.

Arques R. (France).—Pontier, G., 2.

Arran I. (Scotland).—Mort, J.

Arrowsmith, Mount, District (N.Z.).—Speight, R., 4.

Arsenical pyrites.—Beutell, A.

Artesian water, Christchurch (N.Z.).—Speight, R., 3.

—— ——, Lombok I.—Van Heek, J. G. B.

—— ——, Renaix.—Halet, F., 4.

Arthropoda, Carboniferous. — Jackson, J. W., 2; Moysey, L., 1 & 2.

——, Palæozoic coast-lines &.—Clarke, J. M., 3.

Artois (France).—Briquet, A., 5; Gosselet, J., 3-6; Montaigne, —; Vaillant, L.; *see also* Pas-de-Calais.

Asbestos.—Cirkel, F.; Edgecomb, H. R.; Venkataramaiyya, B. N.

Ashanti (W. Afr.).—*See* GOLD COAST Gov. Rep. 1 & 2.

Ashes, Argentine volcanic.—Outes, F. F.; Romero, A. A., 2.

Ashgillian.—Wade, A., 2.

Ashton (Cape Colony).—Rastall, R. H.

Asia Minor.—Berg, G.; Forbes, W. T. M.; Philippson, A.; Reinhard, A.

Aspang (Lr. Austria).—Richarz, S.

Asphalt, California.—Merriam, J. C., 1-3.

——, Neuchâtel.—Schardt, H., 2.

——, Oklahoma.—Hutchinson, L. L.

Assam.—Capito, C. E.; Hayden, H. H.; Pascoe, E. H.

Assynt (Sutherland).—Shand, S. J., 2.

Astarte.—Woods, H.

Asteracanthus.—Priem, F., 4.

Asteridæ, German Triassic.—Schœndorf, F.

Asterocalamites.—Nathorst, A. G., 6.

Asterochlœna, stipes of.—Bertrand, P., 5.

Asteroidea, Jurassic.—Boden, K.

Asterolepis.—Hoffmann, G.

Astrakhan (Russia).—Arkhangelski, A. D.

Asyncritus & *Athymodictya.*—Handlirsch, A., 3.

Atacamite.—Guild, F. N.; Ungemach, H., 2.

Athrotaxis.—Reid, C., 2.

Atlantis.—Habenicht, H., 2.

Atlas Mts. (Morocco).—Gentil, L., 3.

Atolls, Bermuda serpuline.—Bullen, R. A.

Atriplex.—Laurent, L.

Attawapiskat R. (Canada).—McInnes, W.

Attica (Greece).—Frech, F.; *see also* Greece, *&c.*

Aturian.—Lambert, J.

Auburn (Maine).—Ford, W. E.

Aucella Beds, Andö.—Sokolov, D. N., 5.

Aucellina.—Sokolov, D. N.

Audley End (Essex).—Maynard, G.

Augites, French central plateau.—Gonnard, F., 3.

Aulococeras.—Wanner, J.

Aussig a. d. Elbe (Bohemia).—Cornu, F.

Australia (Central) flowing wells. — Gregory, J. W., 5.

—— (South), N. Terr.—Gee, L. C. E.

Australian continent, eastern. — Andrews, E. C., 1 & 3.

—— ——, present Triassic conditions in.—Spicer, E. C.

—— ——, Zeuglodontidæ.—Hall, T. S.

Austria, earthquakes.—Christensen, A.

——, Geological Survey, chemical laboratory.—John, C. von.

—— (Lower).—Gerhart, H.; Grengg, R.; Hlawatsch, C., 2; Richarz, S.; Schaffer, F. X.; Sigmund, A.

—— (Upper).—Geyer, G.

Auvergne (France).—Gex, F. J.; Lévy, A. M.; *see also* Puy-de-Dôme, *&c.*

Avesnes (Nord).—Carpentier, A., 3.

Aveyron (France).—Stevenson, J. J.

Avignon, Mt. (Jura).—Bourgeat, —.

Avonian, British Is.—Dixon, E. E. L.; Reynolds, S. H., 2; Vaughan, A.

Ayrshire (Scotland).—Hind, W.; Reed, F. R. C.; Tyrrell, G. W.

Aysheaia.—Walcott, C. D., 4.

Azóusk (Sudan).—Lemoine, P., 2.

Azurite.—Cohen, F.

Bachant (Ardennes).—Carpentier, A.

Baculites Limestone.—Lambert, J.

Baddeleyite.—Zambonini, F., 3.

Baden (Germany).—Becker, E.; Klute, F.; Niggli, P.; Stehlin, H. G., 3.

Bahia (Brazil).—Branner, J. C., 1-3; Souza-Brandão, V.

Bairdia.—Bolton, H., 2.

Baku (Caspian).—Golubyatnikov, D. V.

Balaghat (India).—Fermor, L. L., 2.

Balanophyllia.—Yakovlev, N., 3.

Balearic Is. (Mediterranean).—Keller, C.; Maheu, J.

Balla cave (Hungary).—Hillebrand, E., 2.

Balmoral (Transvaal).—Wade, A., 3.

Balogbach, Nagy (Hungary).—Vitális, S.

Baltic Quaternary.—Cvijić, J.; Harbort, E., 6; Sernander, R., 2.

Baltic Provs. (Russia).—Boden, K.
Baluchistan (Asia).—Cooper, C. F.; Heron, A. M.
Balwyn (Vict.).—Chapman, F., 6 & 7.
Banffia.—Walcott, C. D., 4.
Banket, origin of Rand.—Schwarz, E. H. L., 3.
——, replacement of quartz by carbon in.—Young, R. B.
Bánya, Nagy (Hungary).—Lœw, M.
BAPTISTA, I. E.—Choffat, P., 2.
Baracspuszta (Hungary).—Guell, W.
Barcelona (Spain).—Mengel, O.; Oppenheim, P.
BARET, C., *Obit*.—*See* Anon., 2.
Bari (Apulia).—Chelussi, I., 3.
Barisal guns.—Cacciamali, G. B.
Barnea.—Newton, R. B., 2.
Baromlaka (Hungary).—Roth von Telegd, L.
Barremian.—Vadász, M. E.
Barriers, Tertiary marine faunal.—Dall, W. H.
Barrington (Camb.).—Hughes, T. McK.
Barytes.—Kolb, R.; Warren, C. H.
—— sand, Egypt.—Pogue, J. E., 2.
Basalt, Antarctic.—Fletcher, A. L.; Worth, R. H.
——, Bonn.—Schuermann, E.; Zirkel, F.
——, Caucasus.—Déchy, M. von.
——, columnar.—Fabiani, R., 3; Gregorio, A. de, 3.
——, Greenland.—Heim, Arn., 2.
——, Hanover.—Grupe, O.
——, Hawaii.—Daly, R. A.
——, Hesse.—Bernges, R.; Grupe, O.; Kraifs, A.
——, Hungary.—Rozlozsnik, P., 2.
——, Japan.—Kôzu, S.
——, New York.—Fenner, C. N.
——, Puy-de-Dôme.—Gonnard, F.
——, Siberia.—Backlund, H.
——, Tafna Basin.—Gentil, L.
——, Victoria.—Armitage, R. W.
——, Washington (U.S.A.).—Landes, H.
Basel (Switzerland).—Huene, F. von, 3; Hug, J.; Leuthardt, F.
Basingstoke (Hants).—Blundell, G. E.
Basins, S. African desert.—Passarge, S.
Basque Districts, French.—Termier, P., 5.
Bass Straits.—Debenham, F.
Basses-Alpes (France).—Kilian, W.
Bassundis (Belg. Congo).—Brien, V.
Baugé (Maine-et-Loire).—Welsch, J.
Bauxite.—Horváth, B. de.
Bavaria.—Ammon, L. von, 1 & 2; Bayberger, F.; Boehm, J.; Eastman, C. R.; Fink, W.; Hahn, F. F., 2; Kœhne, W.; Reis, O. M., 1–3; Rosati, A.; Schuster, J.; Schwertschlager, J., 2; Wagner, G.; Weber, M., 1–3; Welter, O. A., 1 & 2.
——. *See also* Rhenish Bavaria.
Bayania.—Bayarunas, M. V.
Beach-cusps, origin of.—Johnson, D. W.
Bealey (N.Z.).—Speight, R.
Bear I. (Arctic).—Drygalski, E. von.
Beaver, Quaternary.—Kellogg, L.
Beaver Co. (Utah).—Butler, B. S., 1 & 2.
Beaverite, Utah.—Butler, B. S.
Bechuanaland (S. Afr.).—Schwarz, E. H. L., 4.
Bedford Formation, Ohio.—Burroughs, W. G.; Hyde, J. E., 2.
Begichev I. (Arctic Siberia).—Sokolov, D. N., 4.
Belemnites.—Bœhm, J., 3; Franchi, S., 2; Stolley, E., 3; Uhlig, V.
——, siphon of.—Grandjean, F.
Belgium, Carboniferous plants.—Bertrand, P., 4; Kidston, R., 2.
——, Carboniferous Limestone zones.—Delépine, G., 1–4, 6–9; Dorlodot, H. de, 3; Vaughan, A.
——, clays.—Ledoux, A., 3.
——, coalfields.—Breton, L.
——, coast.—Briquet, A., 6.
——, Cretaceous echinoderms.—Lambert, J., 4.
——, Tertiary Basin.—Leriche, M., 5.
——, water-supply.—Deblon, A.; *see also* Water.
——, Wealden fishes.—Traquair, R. H.
——. *See also* Breccias, Carboniferous, Devonian, Liége, *&c.*
Belledonne Mts. (Isère).—Termier, P., 2.
Bellefors (Gothland).—Munthe, H.
Bellegarde (Ain).—Lugeon, M.
Bellerophon.—Wade, A., 2.
Belluno (Lombardy).—Toni, A. de, 4.
Belur (Mysore).—Sampat Iyengar, P., 2.
Ben Nevis (Scotland).—Bailey, E. B., 2.
Bengal (India).—Fermor, L. L., 3; Inglis, W. A.
Benitoite.—Louderback, G. D.
Bennettites.—Lignier, O., 2,
Bensberg (Rh.-Pruss.).—Zeleny, V.
Berea Formation.—Burroughs, W. G.; Hyde, J. E., 2.
Bergerac (Dordogne).—Glangeaud, P.
Berichites.—Salopek, M.
Berici Hills (Venetia).—Fabiani, R., 2, 5, & 6.
Berks Co. (Pa.).—Smith, E. F.
Berkshire.—Dewey, H.; Treacher, L.
Bermuda Is.—Bullen, R. A.
Berne (Switzerland).—Æberhardt, B., 3; Baumberger, E.; Beck, P., 1 & 2; Schardt, H.
Bernburg (Würtemberg).—Jækel, O., 2.
Berner's Bay (Alaska).—Knopf, A.
Bernese Alps (Switzerland).—Beck, P.; Gutzwiller, A.; Truninger, E.
—— Jura (Switzerland).—Fleury, E.
Bernissart (Hainaut).—Traquair, R. H.
Beryl, Elba.—Millosevich, F.
——, Madagascar.—Lacroix, A., 10.
——, Mexico.—Wittich, E.
——, Moravia.—Kretschmer, F., 2.

Besançon (Doubs).—Bourgeat, —, 1-3.
Beudantite.—Schaller, W. T., 2.
Beyrichia.—Spriestersbuch, J.
Bielefeld (Westphalia).—Wetzel, W.
Bienne, Lake (Switzerland).—Schardt, H.
Bighorn Coalfield (Alberta).—Malloch, G. S.
Bigsby Medal awarded to O. Abel.—Watts, W. W., 2.
Bihar Kom. (Hungary).—Kormos, T.
Bilbao (Spain).—John, —; Moressée, G., 2.
Billingsella.—Matley, C. A., 2.
Biloculina.—*See* Sweden, Antarctic Exped. no. 9.
Biotite.—Pogue, J. E.
Birds, Cretaceous.—Hill, M. D.
——, Quaternary.—Harlé, E., 1 & 3; Hill, M. D.; Miller, L. H.
——, Tertiary.—Spulski, B.; *see also* Sweden, Antarctic Exped. no. 1.
——, origin of.—Abel, O.; Hay, O. P.
Birid (Norway) & Birid Limestone.—Rothpletz, A.
Bishop's Stortford (Herts).—Irving, A., 2; Newton, E. T.
Bismarck Archipelago (Pacific). — Schubert, R. J., 1-3.
Bismuth.—Schaller, W. T., 8; Wittich, E.
Bison, Quaternary.—Hilzheimer, M.
Bissell Hill (Worcester).—Cantrill, T. C.
Bittium.—Brown, A. P., 2.
Bituminous coal, Bavaria.—Ammon, L. von.
—— schists, Nord.—Barrois, C., 4 & 5.
Black Forest (Baden). — Becker, E.; Hohenstein, V.; Klute, F.; Muenst, M.; Niggli, P.
Black sands, Belgian Miocene.—Hasse, G., 1 & 5.
Black Sea.—Shvetzov, M. S.
Blake, W. P., *Obit.*—*See* Anon., 3; Raymond, R. W.; & Watts, W. W., 2.
Blanc-Nez, Cape (Pas de Calais).—Briquet, A.
Blastoidocrinus.—Hudson, G. H.
Blattidæ, Carboniferous.—Meunier, F., 2.
Blaye (Lr. Charente).—Welsch, J., 3.
Blyth, T. R., *Obit.*—*See* Hayden, H. H., 2.
Bochianites.—Uhlig, V.
Bockstein (Salzburg).—Canaval, R.
Boden Valley glacier, Karawanken Alps. —Lucerna, R.
Bogoroditzk (Russia).—Vasilevski, M. M.
Bogotá (Colombia).—Rice, H.
Bohemia.—Andert, H.; Barrande, J.; Cornu, F.; Fritsch, A.; Heritsch, F.; Hibsch, J. E.; Hinterlechner, K.; Kowarzik, R. J.; Sokol, R.; Winkler, A.; Zelizko, J. V.
Bohuslän (Sweden).—Westergård, A. H.
Bolderian.—Hasse, G., 1 & 5.
Bolivia.—Armas, M.; Blanco, P. A.; Montessus de Ballore, F. de, 2.
Bolognana (Tuscany).—Ugolini, R., 2.
Bolshezemelskoï Tundra (Siberia). — Backlund, H.
Bone-earth.—Stehlin, H. G., 2.
Bonin I. (Japan).—Yabe, H., 2.
Bonn (Rh.-Pruss.).—Schuermann, E.; Zirkel, F.
Bonnet, C.—Choffat, P., 2.
Boom (Flanders).—Hasse, G., 3.
Bordj-Sarath (Algeria).—Blayac, J., 2.
Borings, Belgium.—Cornet, J.; Fourmarier, P., 8.
——, Croatia.—Steeb, C. von.
——, Denmark.—Jessen, A.
——, France.—Brégi, L.; Chartron, C.; Donnet, C.; Lemoine, P.; Schaudel, L.
——, Germany.—Fœrster, B.; Keilhack, K.; Stuchlik, H.
——, Holland.—Gracht, W. A. J. M. Van W. van der; Huffnagel, P.; Klein, W. C.; Tesch, P.
——, Italy.—Chelussi, I., 2; Clerici, E.
——, Kent.—Anon., 23; Bather, F. A., 5.
——, Russia. — Bronnekov, M. M. Sinzov, I., 2.
——, Sicily.—Gregorio, A. de, 2.
——, Silesia.—Michael, R.
——, S. Australia.—*See* S. Australia, Dep. Mines, 1 & 2.
——, Zwartkops.—Rogers, A. W., 4.
——, molluscan. — Grœnwall, K. A. Leriche, M., 13; Vaillant, L.
Borlinghausen (Westphalia).—Brandes, T.
Borneo (E.I.).—Krause, P. G.; Schmutzer, J.
Bornholm (Baltic).—Bartholin, C. T.; Garbœ, A.; Grœnwall, K. A., 2; Kranz, W., 2.
Bornite.—Laney, F. B.
Borolandite, Assynt. — Gemmell, A.; Shand, S. J., 2.
Borrea.—Meunier, F.
Bos.—Ewald, R.; Keller, C.; Malsburg, K. von der.
Bosnia.—Gregory, J. W., 7; Katzer, F., 1 & 2; Lœw, M., 1 & 2; Schafarzik, F., 2.
Bosporus, Devonian.—Hermann, F.
Botany & geology, E. Galicia.—Szafer, W.
Bothrophoria.—*See* Sweden, Antarctic Exped. no. 5.
Bouchardia.—*See* Sweden, Antarctic Exped. no. 7.
Boulder, Branksome.—Solly, H. S.
——, Leavad Cretaceous. — Carruthers, R. G., 2.
Boulder Clay, South Island (N.Z.).—Speight, R.
Boulder trains.—*See* Moraines.
Boulders, Durham & Northumberland.—Woolacott, D., 2.

Boulders, Norway.—Milthers, V.
Boulonnais (France).—Breton, L.; Dorlodot, H. de, 3; Sauvage, H. E.
Bournonite.—Lœw, M., 3.
Bourgueticrinus.—Griffith, C.
Boussac (Lot).—Mouret, G., 2.
Bovey Tracey (Devon).—Reid, C., 2.
Brabant (Belgium).—Malaise, C.
Brabant, North (Holland).—Tesch, P.
Brachiopoda, Cambrian.—Cobbold, E. S.; Matley, C. A., 2; Walcott, C. D., 3.
——, Carboniferous.—Bolton, H., 2; Clarke, J. M., 7; Delépine, G., 9; Dixon, E. E. L.; Girty, G. H., 5; Nebe, B.; Weller, S., 3; Yabe, H.
——, Cretaceous.—Fritsch, A.
——, Devonian.—Nielsen, K. B.; Reed, F. R. C., 2; Spriestersbach, J.; Vogel von Falckenstein, K.
——, Jurassic.—Blaschke, F.; Boden, K.; Hahn, F. F., 3; Nalivkin, V.
——, Ordovician.—Wade, A., 2.
——, Silurian. — Chapman, F., 5; Maillieux, E., 3.
——, Tertiary.—Dreger, J.; Yokoyama, M.; *see also* SWEDEN, Antarctic Exped. no. 7.
——, Triassic.—Stoyanov, A. A.; Vadász, M. E.
——, stratigraphic value of.—Schuchert, C., 2.
Bracknell (Berks).—Dewey, H.
Bradford Abbas (Dorset).—Richardson, L., 5.
Braeburn coal-district (Yukon Terr.).—Cairnes, D. D.
Brandenburg (Prussia).—Linstow, O. von; Potonié, H., 3; Wahnschaffe, F., 3.
Branksome (Dorset).—Solly, H. S.
Branyiszkó Mts. (Hungary).—Posewitz, T.
Braunite, India.—Fermor, L. L., 4.
Bray, Pays de (France).—Negre, G.
Brazil (S. Am.).—Branner, J. C., 1–3; Crandall, R.; Derby, O. A., 1–3; Leith, C. K.; Souza-Brandão, V.; *see also* SÃO PAULO, Comm. geogr. e geol.
Breccia, Belgian Carboniferous Limestone.—Delépine, G., 8; Fourmarier, P., 2 & 3; Lohest, M., 3.
——, Greece (Eocene). — Négris, P., 4–7.
——, *Lithodomus*-borings in.—Boule, M., 3.
——, Sicily.—Craveri, M., 2.
Brecciation of mineral veins.—Butler, F. H.
Bredwardine (Hereford).—Wright, J.
Bregenz (Vorarlberg).—Schmidt, C., 2.
Bremen Oilfield (Ohio).—Bownocker, J. A.
Brescia (Italy).—Pagani, U.
Brighstone Bay (I. of Wight).—Hooley, R. W.
Bristol (Somerset).—Bolton, H., 2.
Britanny (France).—Azéma, L.; Boyard, C.; Collins, L.
British Association, 1911, Portsmouth.—Anon., 22.
British Columbia (Canada).—Anon., 21; Bailey, F.; Camsell, C.; Graham, R. P. D.; Handlirsch, A.; Walcott, C. D., 4; *see also* BRITISH COLUMBIA, Dep. Mines.
British Isles, building of the.—Jukes-Browne, A. J.
—— ——, Carboniferous Zones.—Delépine, G., 1–4, 6–9; Dorlodot, H. de, 8; Vaughan, A.
—— ——, Glacial Period and present flora.—Reid, C.
—— ——, Quaternary shrews of.—Hinton, M. A. C.
British Museum (Natural History) Geol. Dep.—Woodward, A. S., 4.
Britolite, Greenland.—Bøggild, O. B., 2.
Broadford (Skye).—Harker, A.
Broadmeadows (Victoria). — Stillwell, F. L.
Broken Hill (N.S.W.).—Cohen, F.
Bronze, discovery of.—Habenicht, H., 2.
Brown-coal, Rhenish Prussia.—Gothan, W.; Quaas, A.
—— ——, Transylvania.—Schmidt, C.
Bruay (Nord).—Bertrand, P., 3.
Brünn (Moravia).—Rzehak, A., 2–4.
Brunswick (Germany).—Harbort, E., 1 & 5.
Brussels (Belgium).—Leriche, M., 10.
Bryozoa, Cretaceous.—Brydone, R. M.; Canu, F., 2; Fritsch, A.
——, Quaternary.—*See* SWEDEN, Antarctic Exped. no. 10.
——, Tertiary.—Canu, F.; Kranz, W., 3; Maplestone, C. M.
——, palæogeography &. — Ulrich, E. O.
Bryozoa-Bed (Carb.).—Reynolds, S. H., 2.
Bubendorf (Basel).—Leuthardt, F.
Buca della Vena (Tuscany).—Panichi, U., 2.
BUCCHICH, G., *Obit.*—*See* Kerner, F. von, 4.
Buckenham Tofts (Norfolk).—Clarke, W. G., 2.
Buckinghamshire.—Noble, A. H.
Buda Mts. (Hungary).—Koch, A., 3.
Budapest (Hungary).—Halaváts, G. von; Roth von Telegd, L., 2.
Buenos Aires (Argentina).—Lehmann-Nitsche, R.
Buffalo, extinct Algerian.—Johnston, H. H.
Bugti Hills (Baluchistan).—Cooper, C. F.
Building-stones, Copenhagen. — Norregaard, E. M.
—— ——, Egypt.—Cayeux, L.
—— ——, Hungary.—Schafarzik, F.

Building-stones, Illinois.—Udden, J. A.
—— ——, New South Wales.—Baker, R. T.
—— ——, Oklahoma.—Gould, C. N., &c.
—— ——, Sedgwick Museum.—Watson, J.
—— ——, Westminster Cathedral.—Renwick, W. G., 2.
Bukowina.—Merhart, G. von; Uhlig, V., 2.
Bulawayo (Rhodesia).—Zealley, A. E. V., 2.
Bulla (Victoria).—Armitage, R. W.
Bulli coal-seam, New South Wales.—Woolnough, W. G.
Bunter conglomerate, Swinden.—Landon, J.; *see also* Trias.
Burdigalian.—Canu, F.
Burketown (Queensl.).—Ball, L. C.
Burlescombe (Somerset).—Richardson, L., 5.
Burma.—Vredenburg, E. W., 2.
Burriera.—Laseron, C. F.
Burrington Combe (Somerset).—Reynolds, S. H., 2.
Bushey (Herts).—Kidner, H., 1 & 2.
Butler Co. (Iowa).—Arey, M. F.
Byssonychia.—Hind, W.

Cacurgus.—Handlirsch, A., 3.
Cæsium felspars.—Vernadski, V. I., 2.
Cagliari Prov. (Sardinia).—Taricco, M.
Caicara (Venezuela).—Bendrat, T. A.
Caicos Is. (Pacific).—*See* Great Britain, Colonial Reports.
Caithness (Scotland).—Carruthers, R. G., 2.
Calabria (Italy).—Panichi, U.
Calaite.—*See* Turquoise.
Calama District (Chile).—Sundt, F. A.
Calamariaceæ, Carboniferous.—Jongmans, W. J., 2.
Calamine.—Pogue, J. E.
Calamites.—Jongmans, W. J., 2; Thomas, H. Hamshaw, 2.
Calamitomyelon.—Lignier, O.
Calamocladus.—Thomas, H. Hamshaw, 2.
Calcareous schists, Belgium.—Fourmarier, P., 5.
—— ——, Susa Valley.—Franchi, S., 2.
—— silica, soils &.—Briquet, A., 3 & 4.
—— tufa, Girgenti.—Craveri, M., 2.
—— water, Rome.—Angelis d'Ossat, G. d', 1–3.
Calcite.—Goldschmidt, V.; Guild, F. N.; Morozewicz, J.
Calcium carbonate in fossil shells.—Cole, G. A. J., 3.
Calda Valley (Carnic Alps).—Gortani, M.
Caledonite.—Guild, F. N.
California (U.S.A.).—Andrews, E. C., 2; Eakle, A. S.; Forstner, W.; Guild, F. N.; Jones, W. F.; Kellogg, L.; Louderback, G. D.; Merriam, J. C., 1–3; Miller, L. H.; Reid, J. A.; Rogers, A. F.; Schaller, W. T., 8; Taylor, W. F.; Trowbridge, A. C.
Callianassa.—Bœhm, J., 2.
Callopterus.—Traquair, R. H.
Calvarinus.—Reid, C., 2.
Calvin, S., *Obit.*—*See* Bain, H. F.; Kay, G. F.
Calymmatotheca.—Nathorst, A. G., 6.
Calyptræidæ.—Barrande, J.
Camaret (Finistère).—Azéma, L.
Camblain-l'Abbé (Pas-de-Calais).—Gosselet, J., 2.
Cambrésis (France).—Leriche, M., 2, 3, & 6.
Cambrian, America (North).—Walcott, C. D., 1–4; Watson, T. L., 2.
——, Belgium.—Fourmarier, P., 4; Fraipont, C., 2; Malaise, C., 1 & 3.
——, Gothland.—Nathorst, A. G., 3.
——, Normandy.—Pax, F.
——, Pembroke.—Green, J. F. N., 1–3; Pringle, J.
——, Shropshire.—Cobbold, E. S.; Matley, C. A., 2.
——, Victoria.—Chapman, F., 2.
—— glacial deposits, South Australia.—Howchin, W.
Cambridge.—Hughes, T. McK.
——, Sedgwick Museum.—Watson, J.
Cambro-Silurian, Sweden.—Svenonius, F., 2.
Camelford (Cornwall).—Teall, J. J. H.
Camelopardalis.—Borisyak, A. A.
Camels, Tertiary.—Loomis, F. B.
Campill (Tyrol).—Stiny, J.
Campine (Belgian & Dutch).—Deblon, A.; Fraipont, C., 3; Putzeys, F.; Schmitz, G.; Stainier, X., 3.
Camptonites, South Victoria Land.—Worth, R. H.
Canada, Geological Survey.—Brock, R. W.
——, Glacial drift shield.—Coleman, A. P., 2.
——, ice on lakes of.—Tyrrell, J. B., 2.
——, mineral resources of.—McLeish, J.
——, molybdenum ores.—Walker, T. L.
——, phosphatic deposits of.—Stutzer, O., 4.
——, Transcontinental Ry.—Wilson, W. J.
——. *See also* Asbestos; British Columbia; Canada, Dep. Mines, *&c.*
—— (N.W. Terr.).—McInnes, W.; Wilson, A. W. G.
Canadia.—Walcott, C. D., 4.
Canary Is.—Cottreau, J.; Finckh, L.; Gagel, C., 7; Mascart, J.; Montagnier, H. F.
Cancellaria.—Brown, A. P., 2.
Cancrinite.—Johnsen, A.
Canin, Mt. (Julian Alps).—Marinelli, O.
Caninia.—Reynolds, S. H., 2; Salée, A.
Canis.—Keller, C.
Cannock Chase (Staffs.).—Cockin, G. M.
Cansiglio Plateau (Venetia).—Dal Piaz, G.

Canterbury (N.Z.).—Speight, R., 2 & 3.
Cape of Good Hope (S. Afr.).—Andrews, C. W.; Huene, F. von, 2 & 5; Rastall, R. H.; Rogers, A. W., 1–5; Seward, A. C.; Versfeld, W.; *see also* AFRICA (South), Union of, Dep. Mines.
Cape Verde Is.—Ugolini, R.
Capra.—Harlé, E., 3.
Capromeryx.—Taylor, W. P.
Capulidæ.—Barrande, J.
Caradocian.—Wade, A., 2.
Carbon replacing quartz in Witwatersrand banket.—Young, R. B.
Carbonados (Brazil).—Branner, J. C.
Carbonates, crystals of.—Dorlodot, L. de.
Carboniferous, Arkansas.—Girty, G. H., 1 & 4.
——, Belgium.—Delépine, G., 1–4, 6–9; Dorlodot, H. de, 1–3; Firket, V.; Fourmarier, P., 2 & 5; Harroy, J.; Lohest, M., 3; Vaughan, A.; *see also* Namur, *&c.*
——, Commentry.—Meunier, F.
——, Derbyshire & Notts.—Vernon, R. D.
——, Fifeshire.—Matley, C. A.
——, Glamorgan.—Dixon, E. E. L.
——, Greece.—Négris, P., 6; Renz, C., 5.
——, Greenland.—Nathorst, A. G., 6.
——, Idaho, Wyoming, & Utah.—Girty, G. H., 3.
——, Illinois.—Handlirsch, A., 3.
——, Kentucky.—Springer, F., 3.
——, Lancashire.—Jackson, J. W., 1 & 2; Woodward, H., 3.
——, Magdalen Is.—Beede, J. W.; Clarke, J. M., 7.
——, Nord.—Barrois, C., 2–7; Carpentier, A., 2–6.
——, Novaya Zemlya.—Russanov, V.
——, Ohio.—Burroughs, W. G.; Hyde, J. E., 1 & 2; Morse, W. C.
——, Russia & England.—Lisitzyn, K.
——, Sahara.—Chudeau, R., 2.
——, Solway.—Smith, J.
——, Somerset.—Bolton, H., 2; Sherborn, C. D.
——, Spain.—Grosch, P.
——, Westphalia.—Nebe, B.
——, Yorkshire.—Culpin, H.
Carboniferous Limestone, Belgium.—Carpentier, A.; Delépine, G., 1–4, 6–9; Fourmarier, P., 3; Salée, A.; Vaughan, A.
—— ——, Boulonnais.—Dorlodot, H. de, 3.
—— ——, England.—Cockin, G. M.; Dorlodot, H. de, 3; Reynolds, S. H., 2; Vaughan, A.
—— ——, Ireland.—Delépine, G., 2.
—— ——, Nord.—Carpentier, A., 1 & 2.
—— ——, Salt Range.—Grœber, P.
——, zones of.—Carruthers, R. G.
Carcharodon.—Stefano, G. de.
Carcinophyllum.—Reynolds, S. H., 2.
Cardita deposits, Gschnitz Valley.—Kerner, F. von, 3.
Cardium.—Brown, A. P., 2; Vadász, M. E., 2; Vogel von Falckenstein, K.
Caribbean Sea.—Guppy, R. J. L.
Carinthia (Austria).—Toula, F., 2 & 3.
Carnarvon (S. Africa).—Rogers, A. W., 4 & 5.
Carnegie (Pa.).—Munn, M. J., 2.
Carnic Alps.—Gortani, M.
Carniola (Austria).—Kossmat, F., 2; Marinelli, O.
Carnivora, Tertiary.—Reichenau, W. von.
Carolina, N.—*See* North Carolina.
Carpathian Mts. (Southern).—Cvijic, J.
CARPENTER, F. R., *Obit.*—*See* Hofmann, H. O.
Carpholite.—Ledoux, A.
Carson City (Nevada).—Reid, J. A.
Casale Lunghezza (Rome).—Clerici, E., 2.
Casentino (Tuscany).—Migliorini, C.
Cassel (Hesse).—Schlossmacher, K.
Cassiterite.—Aloisi, P.; Bado, A. A.
Castelgomberto (Venetia).—Kranz, W., 3.
Castleton (Derby).—Brodrick, H.
Castor.—Kellogg, G.
Cat Lake (Canada).—Wilson, A. W. G.
Catalonia (Spain).—Leriche, M., 16; Maheu, J.
Catanzaro (Calabria).—Panichi, U., 1 & 2.
Catapleite.—Goldschmidt, V., 2.
Catenicella.—Maplestone, C. M.
Catskill–New York Aqueduct.—Berkey, C. P.
Caucasus (Russia).—Déchy, M. von; Rehbinder, B.; Rengarten, V.; Shvetzov, M. S.
Caulinites.—Fritel, P. H.
Cautley district (Yorkshire).—Marr, J. E.; Watney, G. R.
Cave-fauna, Polgárdi.—Kormos, T., 3.
Caverns & caves, Apuan Alps.—Regalia, E.
—— ——, Aragon.—Briet, L., 1 & 2.
—— ——, Balearic Is. & Catalonia.—Maheu, J.
—— ——, Charente.—Martin, H.
—— ——, French Jura.—Fournier, E., 2.
—— ——, Greece.—Siderides, N. A.
—— ——, Hérault.—Harlé, E., 2.
—— ——, Hungary.—Hillebrand, E., 1 & 2; Kosmos, T., 1–3; Wattenwyl, L.
—— ——, Kentucky.—Gardner, J. H., 2.
—— ——, Mentone.—Boule, M., 3.
—— ——, Portugal.—Harlé, E., 3.
—— ——, Provence.—Cotte, C.
—— ——, Transylvania.—Podek, F.
Cavities, Magnesian Limestone.—Guy, E.
Ceará (Brazil).—Crandall, R.
Cedroxylon.—Stopes, M. C., 4.

Celebes (D.E.I.).—Ahlburg, J.; Hirschi, H.; Staff, H. von; Wichmann, A., 2.
Celestite.—Kolb, R.
Cellularia.—Maplestone, C. M.
Celtium.—Urbain, G.
Cenis, Mt. (Savoy).—Sacco, F., 3.
Cenomanian.—Fritsch, A.; Gosselet, J., 4.
Cephalopoda, Carboniferous. — Collins, F. G.; Crick, G. C.; Nebe, B.
——, Cretaceous.—Fritsch, A.; Novak, J., 2; Rengarten, V.; Stolley, E., 3; Woods, H.; *see also* Sweden, Antarctic Exped. no. 6.
——, Jurassic.—Boden, K.
——, Tertiary.—Yokoyama, M.
——, Triassic.—Salopek, M., 2; Stoyanov, A. A.; Wanner, J.; *see also* Ammonites, *&c.*
Ceratites.—Benecke, E. W.
Ceratops, skull of.—Huene, F. von, 6.
—— -Beds, N. America.—Gilmore, C. W.; Knowlton, F. H., 2.
Cère Valley (Aquitaine).—Marty, P.
Cerithium.—Bœckh, J. von; Vogt, V.
Ceromya.—Déchy, M. von.
Cerussite.—Guild, F. N.; Hunt, W. F.
Cervus.—Pagani, U.
Cestracion.—Eastman, C. R.
Cestraciontidæ, Cretaceous.—Vis, C. W. de, 4.
Cetacea, Tertiary.—Hall, T. S.
Ceylon.—Jakób, W.; *see also* Great Britain, Colonial Reports, 2.
Ceylonite.—Viola, C.
Chabazite.—Vendl, A.
Chad District (W. Afr.).—*See* France, Ministère des Colonies.
Chagrin Shales, Ohio.—Van Horn, F. R.
Chalcocite.—Laney, F. B.
Chalk bryozoa.—Brydone, R. M.
——, Denmark.—Nielsen, K. B.; Ravn, J. P. J.
——, France.—Canu, F., 2; Filliozat, M.
——, Germany.—Stolley, E., 3.
——, Trimingham.—Brydone, R. M., 2.
——, zones of.—Griffith, C.
Chalk gravel, West Prussia.—Vogel von Falckenstein, K.
—— marls.—Gosselet, J., 4.
Chalk Rock (Bucks).—Noble, A. H.
Chambéry (Savoy). — Combaz, P.; Schaudel, L.
Chamosite iron-ore.—Hess von Wichdorff, H.
Champsosauridæ.—Stromer, E.
Chard (Somerset).—Richardson, L., 5.
Charente, Upper & Lr. (France).—Canu, F., 2; Chartron, C.; Martin, H.; Welsch, J., 3.
Charnwood Forest (Leicester).—Bennett, F. W.
Charoar-Daralagöz (Transcaucasia). — Bonnet, P., 2.
Chartres (Eure et Loir).—Filliozat, M., 2; Ramond, G.
Châteaudun chalk (Loir Valley). — Filliozat, M.
Chaudfontaine (Liége).—Fourmarier, P.
Chaux-de-Fonds (Neuchâtel).—Favre, J.
Chedworth-Cirencester Ry.—Richardson, L., 3.
Cheilea & *Chione*.—Brown, A. P., 2.
Cheliphlebia.—Handlirsch, A., 3.
Chelone.—Wegner, T.
Chemical geology.—Wells, R. C.
Chemistry, crystallography &.—Lœwinson-Lessing, F., 1–5.
Chemung fauna, Virginia.—Kindle, E. M., 4.
Chernyaevskoye (Tula Gov.).—Vasilevski, M. M.
Chert, origin of.—Hill, W.
Chesapeake Bay (U.S.A.).—Pilsbry, H. A., 2.
Chésery (Savoy).—Sarasin, C.
Chester, prehistoric man.—Shone, W.
Chézery (Swiss Jura). — Tsytovich, X. de.
Chiampo Valley (Venetia).—Fabiani, R., 4.
Chihuahua (Mexico).—Pogue, J. E.
Chile (S. Am.).—Sundt, F. A.
Chillagoe (Queensl.). — Etheridge, R. *fil.*
Chilworth (Surrey).—Leighton, D.
China.—Brown, J. C.; Deprat, J., 3; Legendre, —; Walcott, C. D., 3.
Chingford (Essex).—Warren, S. H., 2.
Chinyero (Teneriffe). — Montagnier, H. F.
Chipping Norton (Oxon).—Richardson, L., 2.
Chisola & Chisone Torrents (Piedmont).—Craveri, M.
Chiton, Tertiary.—Fuchs, H. M.
Chitral (Kashgar).—Reed, F. R. C., 2.
Chloritoid minerals.—Manasse, E.
Chocholowska R. (Tatra Mts.).—Lemanowski, M.
Choffat, P., geological works by.—Choffat, P., 3.
Chondrodonta.—Vredenburg, E. W.
Chonetes.—Spriestersbuch, J.
Christchurch (N.Z.).—Speight, R., 3.
Christiania (Norway).—Kiær, J.
Chromium ores, occurrence of.—Johnson, S. J.
Chrysoberyl.—Kretschmer, F., 2.
Chrysolite-asbestos, Canadian. — Cirkel, F.
Chuangia.—Walcott, C. D., 3.
Churfirsten Group (St. Gall).—Heim, Arn.
Cimina, Mte. (Italy).—Sabatini, V.
Cirencester-Chedworth Ry. — Richardson, L., 3.
Cirques, Fribourg Alps & Tatra Mts.—Koncza, M.
——, formation of Alpine.—Andrews, E. C., 2.

Cirripedia, Jurassic.—Withers, T. H.
——, Tertiary.—Schaffer, F. X.
Citera I. (Adriatic).—Nelli, B.
Claviporella.—Maplestone, C. M.
Clay-blocks & nodules, river-rolled.—Krishtafovich, N. I.
—— -slate, Hesse.—Gerth, H.
——. *See also* Slate, *&c.*
Clays, Belgium.—Ledoux, A., 3.
——, Herefordshire.—Wright, J.
——, Illinois.—Udder, J. A.
——, New Brunswick & Nova Scotia.—Ries, H.
——, New Jersey.—Kuemmel, H. B.
——, North of England.—Hall, A. A.
——, Ohio.—Worcester, W. G.
——, Oklahoma.—Snider, L. C.
——, Tuscany.—Pantanelli, D.
——, colloidal silica &.—Stremme, H., 3; Van der Leeden, R.
——, plasticity of.—Van Bemmelen, J. M.
Clayton (N.Y.).—Cushing, H.
Cleiocrinus.—Springer, F.
Cleistopora Zone.—Reynolds, S. H., 2.
Clemmys, Quaternary.—Kormos, T., 3.
Cleniza.—Leriche, M., 13.
Clermont (Queensl.).—Etheridge, R., *fil.*
Cleveland Dyke (Yorks).—King, W.
—— (Ohio).—Van Horn, F. R.
Clichy (Paris).—Rutot, A.
Climacograptus.—Horn, E.
Climates, Africa (N.E.).—Hume, W. F., 3.
——, geological.—Anderson, G.; Burckhardt, C., 1 & 2; Carthaus, E.; Gothan, W., 2; Hess, H.; Kerner, F. von, 6; Marriott, R. A.; Nathorst, A. G.; Speight, R., 2.
Climatic anomalies, United States.—Arctovski, H.
Clinton Sand.—Bownocker, J. A., 3.
Cliona & *Clionoida.*—Smith, J.
Clisospira.—Barrande, J.
Clypeaster.—Das-Gupta, H. C., 2; Gregory, J. W., 3; Lovisato, D.
Coal, Africa (S.).—*See* Africa (South), Union of, Dep. Mines.
——, Assam.—Pascoe, E. H.
——, Bavaria.—Ammon, L. von.
——, Bosnia.—Schafarzik, F., 2.
——, British Columbia.—Anon., 21.
——, Campine.—Putzeys, F.; Schmidt, G.
——, Canada.—McLeish, J.; Malloch, G. S.
——, Commentry.—Meunier, F.
——, Franche-Comté.—Fournier, E.
——, Greenland.—Heim, Arn., 2.
——, Hanover.—Schmierer, T.
——, Japan.—Inouye, K.
——, Kent.—Anon., 23.
——, Mexico.—Birkinbine, J. L. W.
——, New Guinea.—Rawling, C. G.
Coal, New South Wales.—Woolnough, W. G.; *see also* New South Wales, Dep. Mines.
——, Nord.—Mettrier, M.; Pruvost, P.
——, Normandy.—Negre, G.
——, Rantau Panjang.—Scrivenor, J. B.
——, Russia.—Prigorovski, M.; Vasilevski, M. M.
——, Saghalien I.—Tichonovich, N.
——, Savoy.—Schelbener, E.
——, Siberia (E.).—Maliavkin, S.
——, South Australia.—*See* S. Australia, Dep. Mines.
——, Spitsbergen.—Brown, R. N. R.
——, Tasmania.—*See* Tasmania, Dep. Mines, 1-3.
——, Transvaal.—*See* Transvaal, Mines Dep.
——, United States.—Campbell, M. R., 2; De Wolf, F. W., 1 & 2; Herrick, C. L.; Lakes, A.; Shaw, E. W.; *see also* United States, Geol. Surv., 2.
——, Vorarlberg.—Schmidt, C., 2.
——, Yukon Terr.—Cairnes, D. D.
——, carbonization of.—Lewis, V. B.
——, chemical & physical changes of.—Meffert, W.
——, formation of.—Henderson, J.; Potonié, H., 2 & 4; Stainier, X., 2; Stevenson, J. J., 1 & 2; Stremme, H., 2.
——, relation of texture to composition.—Grout, F. F.
Coal-balls, Rhenish brown-coal.—Gothan, W.
——, origin of.—Fraipont, C.
Coalfields, Assam.—Hayden, H. H.
——, Bavaria.—Stuchlik, H.
——, Belgium.—Breton, L.; Deblon, A.; Klein, W. C.; Stainier, X., 3.
——, Bristol.—Bolton, H., 2.
——, Cannock Chase.—Cockin, G. M.
——, Commentry.—Meunier, F., 1 & 2.
——, Decazeville.—Stevenson, J. J.
——, Derbyshire & Notts.—Kendall, P. F.; Vernon, R. D.
——, Donetz Basin.—Sokolov, V.
——, Edmonton (Alberta).—Dowling, D. B.
——, India.—Ditmas, F. I. L.; Schreiber, F.
——, Japan.—Yokoyama, M.
——, La Veta.—Lakes, A.
——, Lancashire.—Holland, Sir T. H.
——, Midland concealed.—Gibson, W.; Kendall, P. F.
——, Moravia.—Petrascheck, W.
——, New Zealand.—Henderson, J.
——, Nord & Pas-de-Calais.—Barrois, C., 2-7; Breton, L.
——, Peissenberg.—Kœhne, W.
——, Pennsylvania.—Phalen, W. C.
——, Rhenish Prussia.—Holzapfel, E.
——, Somerset.—Steart, F. A.
——, South Wales.—Arnold, T.; Bolton, H.

Coal-measure shales, Northumberland.—Burton, R. C., 2.
Coast, Belgian & French.—Briquet, A., 6.
—— erosion, Lr. Loire.—Chevalier, M.
—— protection, Holland.—Carey, A. E.
—— scenery, Devon.—Arber, E. A. N.
Cobalt glance.—Beutell, A., 2.
Coblenzian.—Fuchs, A.; Herrmann, F., 2.
Coccolepis.—Traquair, R. H.
Cochuila (Mexico).—Moser, E.
Cockburn I. (Antarctic).—*See* SWEDEN, Antarctic Exped. nos. 7 & 10.
Cockerelliella.—Meunier, F.
Codfish in glacial clay, Gothland.—Munthe, H.
Colemanite.—Eakle, A. S.
Colfontaine (Hainaut).—Bertrand, P., 2.
Colombia.—Rice, H.; Rudolph, E.
Colonization, geology &.—Diniz, F.
Colonsay (Hebrides).—Craig, E. H. C.; Wright, W. B., 2.
Colorado (U.S.A.).—Atwood, W. W.; Bœhmer, M.; Bastin, E. S., 2; Lakes, A.; Patton, H. B.
Columnar basalt.—Armitage, R. W.
Colwell (Worcester).—Wickham, W.
Comley (Shropshire).—Cobbold, E. S.; Matley, C. A., 2.
Commentry (Allier).—Meunier, F., 1 & 2.
Compton (Surrey).—Young, G. W.
Comrie (Perth).—Carus-Wilson, C., 2.
Concepción del Oro (Mexico).—Bergeat, A.
Condroz district (Belgium).—Fourmarier, P., 5.
Cónero, Mte. (Italy).—Parona, C. F., 2.
Conference, International Agrogeological, Sweden, 1910.—Vinassa de Regny, P.; *see also* Agrogeological.
Congeria Beds, Lr. Austria.—Grengg, R.
Conglomerate, Cockburn I.—*See* SWEDEN, Antarctic Exped. no. 10.
——, Lens.—Barrois, C., 6.
——, Liége Carboniferous.—Firket, V.
——, Renaix.—Briquet, A., 2.
——, Tosterup.—Grœnwall, K. A., 2.
Congo (Belgian).—Cornet, J., 3; Passau, G.; *see also* BELGIUM, Ann. Mus. du Congo, 1 & 2.
—— Basin (Africa).—Ball, S. H.; Brien, V.; Hall, S. H.; Halet, F.; Stutzer, O., 6; Wildeman, É. de.
Congress, International Geological, Stockholm, 1910.—Capellini, G.; Halet, F., 2.
Coniferocaulon.—Knowlton, F. H.; Stopes, M. C., 2.
Conifers, Triassic.—Brown, A. P.; *see also* Plants.
Coniopteris.—Thomas, H. Hamshaw.
Connecticut (U.S.A.).—Talbot, M.
Constance, Lake of.—Schmidle, W.; Wagner, E., 2.
Constantine (Algeria).—Blayac, J. Joly, A., 2.
Contact-metamorphism, Aar Massif.—Truninger, E.
——, Scotland.—Shand, S. J.
Continental deposits, fossils &.—Kindle, E. M.
Continents, origin of.—Lukashevich, J.
Contursi (Italy).—Casoria, E.
Conularia.—Zelizko, J. V.
Conulus, teeth of.—Hawkins, H. L.
Conus.—Brown, A. P., 2.
COOKE, T., *Obit.*—*See* Watts, W. W., 2.
Coon Butte (Ariz.).—Berringer, D. M.
Copenhagen (Denmark).—Norregaard, E. M.
Copeognathidæ, Baltic amber.—Enderlein, G.
Copper, Alaska.—Brooks, A. H.
——, Appalachian States.—Weed, W. H.
——, Arizona.—Bancroft, H.
——, British Columbia.—*See* BRITISH COLUMBIA, Dep. Mines.
——, Carolina & Virginia.—Laney, F. B.
——, Chile.—Sundt, F. A.
——, Colorado.—Bastin, E. S., 2.
——, Congo.—Stutzer, O., 6.
——, Cuba.—Tuttle, E. G.
——, Europe.—Launay, L. de, 2.
——, German S.W. Africa.—Krusch, P.
——, Harz Mts.—Lindgren, W., 3.
——, Huelva.—Finlayson, A. M.
——, Japan.—Inouye, K.
——, Lorraine.—Weyhmann, A.
——, Mexico.—Bergeat, A.
——, New South Wales.—*See* NEW SOUTH WALES, Dep. Mines.
——, Ontario.—Moore, E. S.
——, Salzburg.—Redlich, K. A.
——, Siberia (E.).—Weigel, O.
——, South Africa.—Hahn, P. D., 2; Spencer, H. A.
——, South Australia.—*See* S. AUSTRALIA, Dep. Mines, 1 & 2.
——, Sweden.—Johansson, H. E.
Copper ores, deposition of.—Lindgren, W., 1–3.
Copper-schists, foot-wall of.—Meinecke, F.
Coral-reefs, E. & W. Indies.—Martin, K., 4.
—— ——, Palæozoic.—Vaughan, T. W.
—— ——, origin of.—Guenther, S.
Corals, Carboniferous.—Dixon, E. E. L.; Reynolds, S. H., 2; Salée, A., 1–3; Smith, J.; *see also* Zones, Carboniferous.
——, Cretaceous.—Fritsch, A.; Trauth, F., 2; *see also* SWEDEN, Antarctic Exped. no. 5.
——, Devonian.—Herrmann, F.; Yakovlev, N., 3.
——, Jurassic.—Déchy, M. von; Hahn, F. F., 3.
——, Ordovician.—Wade, A., 2.
——, Silurian.—Etheridge, R., *fil.*

Corals, Tertiary.—Oppenheim, P.
Corbières (France).—Lambert, J., 3.
Cordierite.—Laubmann, H.
Cordova, Sierra de (Argentina).—Rovereto, G., 2.
Corinth (Greece).—Négris, P., 7.
Cornwall.—Collins, J. H.; Teall, J. J. H.
Corophioides.—Smith, J.
Corrasion & corrosion.—Gregory, J. W., 4.
Corsica.—Maury, E.
Cortlandt Series.—Rogers, G. S.
Corundum.—Venkataramaiyya, B. N.
Cosnac district (France).—Welsch, J., 3.
Cossacks of the Don Region (Russia).—Bogachev, V.
Costa Rica.—Pilsbry, H. A.
Côte d'Or (Burgundy).—Boyard, C.
Cotentin (Normandy).—Lambert, J.
Cotteswold Hills.—Gray, J. W.
Cottian Alps.—Sacco, F., 3.
Cotylosaurs, Permian.—Williston, S. W., 4.
Cracow (Galicia).—Wójcika, K.
Crag, Ipswich.—Moir, J. R.
Cranæna.—Weller, S., 3.
Crania.—Nielsen, K. B.
Crater, Cañon Diablo.—Sjœgren, H.
Craters, lunar.—Dahmer, G.
——, Phlegræan Fields.—Starrabba, F. S.
Creazzo (Venetia).—Kranz, W., 3.
Creeps, N.S.W. coal-seams.—Woolnough, W. G.
Crenicernus.—Grossouvre, A. de.
Crepicephalus.—Chapman, F., 2.
Cretaceo-Tertiary, N. America.—Knowlton, F. H., 2.
Cretaceous, African Continent.—Krenkel, E., 1 & 2; Newton, R. B., 2; Woods, H.
——, Algeria.—Blayac, J.
——, Amur district.—Sokolov, D. N., 6.
——, Andes.—Uhlig, V., 3.
——, Antarctic.—*See* SWEDEN, Antarctic Exped. nos. 4, 5, 6, 7, & 12.
——, Belgium.—Cornet, J., 2; Lambert, J., 4.
——, Bohemia.—Fritsch, A.
——, Buckinghamshire.—Noble, A. H.
——, Canary Is.—Cottreau, J.
——, Crimea.—Sloudski, A.
——, Daghestan.—Rengarten, V.
——, Dakota.—Leonard, A. G.
——, Denmark.—Nielsen, K. B.
——, Egypt.—Hume, W. F.
——, Germany.—Andert, H.; Scupin, H.; Stolley, E., 2; Tornquist, A.
——, Greece.—Frech, F.; Négris, P., 2.
——, India.—Das-Gupta, H. C.
——, Japan.—Stopes, M. C., 4.
——, Krassó Szoreny Mts.—Bœckh, J. von.
——, Maine-et-Loire.—Welsch, J., 1 & 2.
Cretaceous, Moravia.—Tietze, E., 2; Trauth, F., 2.
——, New Jersey.—Berry, E. W.
——, New Zealand.—Marshall, P.; Park, J.
——, Nord.—Gosselet, J., 1 & 7; Leriche, M., 2; Pruvost, P., 3.
——, Normandy.—Lambert, J.
——, Pas de Calais.—Gosselet, J., 2-6.
——, Poland.—Novak, J.
——, Provence.—Repelin, J.
——, Russia.—Arkangelski, A. D., 2 Déchy, M. von; Sinzov, I.
——, St. Gall.—Heim, Arn.
——, Santander.—Mengaud, L., 3; Pâquier, V.
——, Seistan.—Vredenburg, E. W.
——, Transcaspian.—Sokolov, D. N.
——, Transcaucasia.—Bonnet, P., 2.
——, Transylvania.—Vadász, M. E.
——, Venetia.—Parona, C. F., 4.
—— boulder, Leavad.—Carruthers, R. G., 2.
—— shales, Rumania.—Pascu, R.
Crete, I. of.—Cayeux, L., 5 & 6.
Cretovarium.—Stopes, M. C., 4.
Crimea (Russia).—Borisyak, A. A.; Popov, S. P.; Sloudski, A.
Crinoid faunas, age of recent.—Clark, A. H.
Crinoidea, Carboniferous.—Springer, F., 3.
——, Cretaceous.—Filliozat, M., 2; Griffith, C.; Springer, F., 2.
——, Devonian.—Springer, F., 2.
——, Jurassic.—Bather, F. A., 5; Boden, K.
——, Silurian.—Hudson, G. H.; Springer, F.
Cristobalite, quartz &.—Holmquist, P. J.
Croatia.—Gorjanović-Kramberger, K., 1 & 2; Salopek, M.; Steeb, C. von; Tućan, F., 2.
Crocodile, Cretaceous.—Gilmore, C. W.
Cro-Magnon skull.—Marie, A.
Croydon (W. Austral.).—Woodward, H. P.
Crussol (Ardèche).—Riche, A.
Crustacea, Cambrian.—Walcott, C. D.
——, Carboniferous.—Calman, W. T., 1 & 2; Carpentier, A.; Moysey, L.; Woodward, H., 3.
——, Cretaceous.—Fritsch, A.
——, Devonian.—Spriestersbuch, J.
——, Jurassic.—Blaschke, F.; Bœhm, J., 2; Stolley, E.; Woodward, H., 2.
——, Silurian.—Reed, F. R. C.
——, Tertiary.—Fabiani, R., 6; Fucini, A.; Toula, F., 4.
Cruziana.—Pietzsch, K.
Cryolite.—Steenstrup, K. J. V.
Cryptomeriopsis.—Stopes, M. C., 4.
Crystalline ridge, Scandinavia.—Svenonius, F., 2.

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—— ——, Odenwald.—Klemm, G.
—— schists.—Grubenmann, U.
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——, growth of.—Miers, Sir Henry A.
——, pyromorphite.—Bowles, O.
——, twinning of.—Becke, F., 2; Goldschmidt, V.; Hunt, W.
Cserbel & Cserisor (Hungary).—Kadić, O.
Csövár (Hungary).—Vadász, M. E., 2.
Ctenodonta.—Hind, W.; Spriestersbuch, J.
Cuba (W.I.).—Tuttle, E. G.
Cuesmes (Hainaut).—Cornet, J.
Cuillin Range (Skye).—Gwinnell, W. F.
Cullercoats Bay (Northumberland).—Haselhurst, S. R.
Culm, Devon.—Arber, E. A. N., 1–3; Collins, F. G.; Sherborn, C. D.
——, Riesengebirge.—Berg, G., 3.
——, Westphalia.—Nebe, B.
Cumberland.—Haselhurst, S. R.
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Cunninghamiostrobus.—Stopes, M. C., 4.
Cuprodescloizite.—Guild, F. N.
Cupulocrinus.—Springer, F.
Curries Mt. (N.B.).—Bailey, L. W.
Cuspidaria.—Newton, R. B., 2.
Cuyuna Range (Min.).—Adams, F. S.
Cyanite.—Watson, T. L., 3.
Cyathophora.—Déchy, M. von.
Cyathophyllum.—Etheridge, R., *fil.*; Reynolds, S. H., 2; Yakovlev, N., 3.
Cycadocarpidium.—Nathorst, A. G., 5.
Cycads, Jurassic.—Wieland, G. R., 2 & 3.
——, Triassic.—Brown, A. P.
Cyclades Is.—Cayeux, L., 4, 7, & 8; Ktenas, C. A.
Cyclonema.—Wade, A., 2.
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Cyclotella.—Cleve-Euler, A.
Cypricardia.—Bœckh, J. von.
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Cyrena Marls.—Steuer, A., 2.
Cyrenaica (N. Afr.).—Chapman, F.; Gregory, J. W., 2 & 3; MacDonald, D. P.; Newton, R. B.
Cyrtograptus.—Watney, G. R.
Cystoidea, Palæozoic.—Jækel, O.
Czervome Warchy (Hungary).—Limanowski, M.
Czuchow (Silesia).—Michael, R.

Daaden (Rh.-Pruss.).—Fuchs, A.
Dacite.—Déchy, M. von.
Dadoxylon.—Halle, T. G.; Zalesski, M. D., 2; *see also* SWEDEN, Antarctic Exped. no. 8.
Daghestan (Caucasus).—Rengarten, V.
Dahllite.—Schaller, W. T., 5.
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Dakota (U.S.A.).—Leonard, A. G.
——, S.—*See* South Dakota.
Dalmania.—Pruvost, P., 2.
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Dandenong Creek (Victoria).—Jutson, J. T.
Danish peat, ages of.—Sernander, R.
Danube.—Roth von Telegd, L., 2; Schwertschlager, J., 2; Vadász, M. E., 2.
Darmstadt (Hesse).—Klemm, G.; Lepsius, 1 & 2.
Dartford Heath (Kent).—Chandler, R. H.
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Dauphiné (France).—Termier, P., 2.
Davis Co. (Iowa).—Arey, M. F., 4.
Decalcification of Tertiary beds.—Meunier, S., 5.
Decazeville (Aveyron).—Stevenson, J. J.
Dedolomitization, origin of.—Crook, T.
Delos I. (Cyclades).—Cayeux, L., 4 & 7.
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Dendrograptus.—Tœrnquist, S. S.
Denée (Namur).—Delépine, G., 6; Dorlodot, H. de, 1–3; Fraipont, C., 4; Salée, A., 2 & 3.
Denkershauser Canal (Pr.Sax.).—Kœnen, A. von, 2.
Denmark.—Garbœ, A.; Jessen, A.; Nielsen, K. B.; Norregaard, E. M.; Ravn, J. P. J.; Sernander, R.
Dentalium.—Crema, C.; Newton, R. B., 2; Pilsbry, H. A.
Denudation, use of term.—Gregory, J. W., 4.
Derbyshire.—Brodrick, H.; Gibson, W.; Kendall, P. F.; Moysey, L., 1 & 2; Vernon, R. D.
Dermaptera, amber.—Burr, M.
Desert, Eastern (Egypt).—Wade, A.
——, Namaqualand.—Cloos, H.
—— basins, S. Africa.—Passarge, S.
—— ranges, origin of present profiles.—Keyes, C. R., 1 & 2.
Desmemys.—Wegner, T., 2.
Desmoceras.—Noble, A. H.; *see also* SWEDEN, Antarctic Exped. no. 6.
Desmostylus.—Merriam, J. C., 5.
Detling (Kent).—Crook, R.
Detmold (Lippe).—Stille, H.
Devon.—Arber, E. A. N., 1–3; Collins, F. G.; Crick, G. C.; Reid, C., 2; Sherborn, C. D.; Strahan, A., 2.
Devonian, Afghanistan, Persia, & Himalayas.—Reed, F. R. C., 2.
——, Ardennes.—Fourmarier, P., 7.
——, Bohemia.—Barrande, J.
——, Bosporus.—Herrmann, F.
——, Falkland Is.—Halle, T. G.
——, Graz.—Heritsch, F.

Devonian, Harz.—Harbort, E., 2.
——, Hesse.—Herrmann, F., 1 & 2.
——, Luxemburg.—Anten, J.
——, Lys Basin.—Gosselet, J., 7.
——, Namur. — Harroy, J.; Maillieux, E.
——, Novaya Zemlya.—Russanov, V.
——, Ohio.—Van Horn, F. R.
——, Pyrenees.—Pruvost, P., 2.
——, Rhenish Prussia. — Fuchs, A.; Kranz, W.; Krause, P. G., 2; Spriestersbuch, J.; Winterfield, F., 1–4.
——, Silesia.—Cramer, R.
——, Timan Penin.—Yakovlev, N., 3.
——, Virginia.—Kindle, E. M., 4.
——, Westphalia. — Fuchs, A., 2; Schmidt, W. E.; Spriestersbuch, J.
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Dexiobia.—Hind, W.
Diabase, Hesse.—Klemm, G.
——, Ontario.—Hore, R. E.
——, Styria.—Welisch, L.
——, laterite from.—Harrison, J. B.
Diablo Cañon (Ariz.).—Sjœgren, H.
Diamond pipes, Orangia.—Harger, H. S.
Diamonds, Africa (S.).—Spencer, L. J.; *see also* AFRICA (South), Union of, Dep. Mines.
——, Brazil. — Branner, J. C.; Derby, O. A., 2 & 3.
——, British Columbia.—Camsell, C.
——, German S.W. Africa. — Ashmore, G. P.; Krause, C.; Range, P.
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——, Orangia.—Harger, H. S.
——, Transvaal. — *See* TRANSVAAL, Mines Dep.
——, origin of.—Cocker, R. B.; Derby, O. A., 2 & 3.
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Diggers' Rest (Victoria).—Armitage, R. W.
Dillon (Montana).—Winchell, A. N.
Dimerocrinus.—Springer, F., 2.
Dinant (Belgium).—Harroy, J.
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Dinosauria.—Broom, R.; Hay, O. P; Huene, F. von, 3 & 5; Knowlton, F. H., 4; Talbot, M.; Wieland, G. R.
Diopside.—Goldschmidt, V., 2.
Dioptase.—Hahn, P. D., 2.
Diorite.—Kretschmer, F.; Rasch, W.
Diphyphyllum.—Reynolds, S. H., 2.
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Discoidea.—Cottreau, J.
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Dobritz (Saxony).—Sauer, A.; Stutzer, O., 3.
Dobrudsha (Rumania). — Pascu, R., 1 & 2.
Dognácska (Hungary).—Zimanyi, K.
Dolomite.—Franchi, S., 2; Gordon, M. M. O., 2; Lincio, G.; Steidtmann, E.; Vadász, M. E., 2; Weller, S., 2.
Don R. (Russia).—Bogachev, V.
Don Cossacks, Prov. of (Russia). — Stepanov, P. I.
Donax.—Tutkovski, P.
Doncaster (Vict.).—Chapman, F., 7.
Donetz Basin (Russia).—Nalivkin, V.; Sokolov, V.; Stepanov, P. I.; Zaleski, M. D., 2.
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Dora Riparia Valley (Piedmont). — Sacco, F., 3.
Dordogne (Périgord). — Glangeaud, P.; Marty, P.
Dorm (Brunswick).—Harbort, E.
Dorogobush (Smolensk Gov.).—Tumin, G.
Dorset.—Ord, W. T.; Richardson, L., 5; Solly, H. S.
Dorycrinus.—Springer, F., 2.
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'Dragon tree,' Kentish Rag.—Knowlton, F. H.; Stopes, M. C., 1 & 2.
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Dumbleton Hill (Gloucester). — Woodward, H., 2.
Dumortierite.—Lacroix, A., 2.
Dunball (Somerset). — Richardson, L., 5.
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Dunes, New Zealand.—Cockayne, L.; Cornish, V.
——, Nord, &c.—Bardou, P., 2.
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Durania.—Parona, C. F., 3.
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Dykes, I. of Man.—Simmons, W. C.

Eagle, Quaternary.—Miller, L. H.
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—— as a moon.—Sacco, F., 2.
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——, figure of.—Love, A. E. H.
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——, Bolivia.—Montessus de Ballore, F. de, 2.
——, Colombia.—Rudolph, E.
——, Disco I.—Harbœ, E. G.
——, Glasgow.—Gregory, J. W., 8.
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——, Latium.—Agamennone, G.
——, Marseille.—Fabry, L.
——, Mexico.—Miranda y Marrón, M.
——, Paris, 1911.—Angot, A.
——, Portugal.—Choffat, P., 1 & 5.
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——, Umbria.—Principi, P.
——, glaciers &.—Tarr, R. S., 2.
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—— Jurassic.—Blaschke, F.; Boden, K.; Déchy, M. von; Hawkins, H. L., 3.
——, Silurian.—Springer, F.
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Eglestone (California).—Rogers, A. F.
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—— fold, Ardennes.—Fourmarier, P., 6.
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Estancia Valley (New Mexico).—Meinzer, O. E.
Estheria.—Bolton, H., 2.
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Exeter (Devon).—Arber, E. A. N.; Collins, F. G.; Crick, G. C.; Sherborn, C. D.
Exogyra.—Vogel von Falckenstein, K.

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Fajnoráci (Hungary).—Wattenwyl, L.
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——, Jura.—Bourgeat, —, 1–3.
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Felis.—Harlé, E., 3; Kowarzik, R. J.
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——, potash.—Barbier, P.
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——, Cretaceous.—Fowler, H. W.; Fritsch, A.; Leriche, M., 15 & 17; Priem, F., 2 & 4; Stolley, E., 2; Vis, C. W. de, 1 & 4; Woodward, A. S.; *see also* SWEDEN, Antarctic Exped. no. 4.
——, Devonian.—Cramer, R.; Hoffmann, G.; Woodward, A. S., 2.
——, Jurassic.—Boden, K.; Eastman, C. R.; Traquair, R. H.
——, Quaternary.—Munthe, H.; Pantanelli, D.
——, Silurian.—Priem, F., 3.
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Geological Department, British Museum (Nat. Hist.).—Woodward, A. S., 4.
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—— ——, plants & the.—Reid, C.
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——, Hungary.—Gastaldi, C., 2.
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Kettleman Hills (Cal.).—Kellogg, L.
Keuper Marls, Somerset.—Richardson, L.
Khan-Tengri Mts. (Asia).—Friederichsen, M.
Kharga (Egypt).—Pogue, J. E., 2.
Kharkov Gov. (Russia).—Vasilevski, M. M., 2.
Kheis Series.—Rogers, A. W., 3; Schwarz, E. H. L., 4.
Khor Dongonab (Red Sea).—Crossland, C.
Khunmu (Kashmir).—Das-Gupta, H. C., 3.
Kidderminster (Worcester).—Cantrill, T. C.
Kielce Mts. (Russia).—Sobolev, D.
Kiirunavaara district (Norrbotten).—Greim, G.
Kilmarnock Museum, fossil amphibia lately in.—Dunlop, R.
Kimberlite.—Wagner, P. A., 2.
Kimpolung (Bukowina).—Uhlig, V., 2.
Kincardineshire.—Campbell, R.
King I. (Bass Straits).—Debenham, F.
Kirkfield (Ont.).—Springer, F.
Kissármás (Hungary).—Papp, K. von, 3.
Klaassen, H. M., *Obit.*—*See* Anon., 8.
Klogsdorf (Moravia).—Trauth, F., 2.
Knobstone Formation, Kentucky.—Springer, F., 3.
Köhalom (Hungary).—Roth von Telegd, K.
Koldeholene (Hardanger).—Rekstad, J., 4.
Kolozs district (Hungary).—Papp, K. von, 3.
Kolozsvár (Hungary).—Koch, A.
König-Karls Land (Arctic).—Gothan, W.
Königsberg Museum, amber.—Tornquist, A.
Königslutter (Brunswick).—Harbort, E.
Kornya (Hungary).—Schreter, Z.
Korycan (Bohemia).—Fritsch, A.
Kosna (Hungary).—Rozlozsnik, P.
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Kostroma Gov. (Russia).—Ivanov, A. P.
Krassó-Szörény (Hungary).—Bœckh, J. von; Mauritz, B.
Krebat-Salatim (Ural Mts.).—Duparc, L., 3.
Kreibitz (Bohemia).—Andert, H.
Kreutz, F. F. X., *Obit.*—*See* Anon., 9.
Kronstadt (Transylvania).—Toula, F.
Ktypas, Mt. (Greece).—Négris, P., 3.
Kuban (Russia).—Charnotzki, S.
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Kuselite.—Schuster, M., 2.
Kynocks coal district (Yukon Terr.).—Cairnes, D. D.

Laacher See (Rhenish - Prussia).—Brauns, R., 3.
Laccolites.—Branca, W., 1 & 3; Cornu, F.; Hœrnes, R.; Reck, H.
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Ladánybene (Hungary).—Guell, W.
Læogyra.—Barrande, J.
Lafayette Co. (Mississippi) & Lafayette Formation.—Berry, E. W., 2.
Laflamme, J. C. K., *Obit.*—*See* Clarke, J. M.
Laggania.—Walcott, C. D., 2.
Lake of the Woods (Ontario).—Parsons, A. L.
Lake, Mimiani new.—Gregorio, A. de, 5.
——, Wigger Valley ancient.—Æberhardt, B., 2.
Lakes, Canada.—Goldthwait, J. W.; Tyrrell, J. B., 2.
——, Mississippi Quaternary.—Shaw, E. W.
——, Neuchâtel district.—Schardt, H., 2.
Laloy, R., *Obit.*—*See* Barrois, C.
Lamellibranchiata, Carboniferous.—Bolton, H., 2; Clarke, J. M., 7; Nebe, B.
——, Cretaceous.—Bœckh, J.; Das-Gupta, H. C.; Franke, F.; Fritsch, A.; Leriche, M., 2; Sloudski, A.; Sokolov, D. N.; Vogel von Falckenstein, K.; Vredenburg, E. W.; Woods, H.; *see also* Sweden, Antarctic Exped. no. 12.
——, Devonian.—Cramer, R.; Herrmann, F., 2.; Spriestersbuch, J.
——, Jurassic.—Blaschke, F.; Boden, K.; Déchy, M. von; Paris, E. T., 1–3; Parona, C. F.
——, Permo-Carboniferous.—Laseron, C. F.
——, Quaternary.—Jackson, J. W., 3; *see also* Sweden, Antarctic Exped. no. 10.
——, Silurian.—Hind, W.
——, Tertiary.—Bayarunas, M. V.; Brown, A. P., 2; Chapman, F., 4; Cossmann, M.; Martin, K.; Newton,

R. B., 1 & 2; Schaffer, F. X.; Suter, H.; Yokoyama, M.; *see also* SWEDEN, Antarctic Exped. no. 13.
Lamellibranchiata, Triassic.—Koch, A., 3; Vadász, M. E., 2; Wittenburg, P. von; Wurm, A.
Lamna.—Stromer, E.
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Lance Formation.—Knowlton, F. H., 2.
Land, changes of level of.—Blaupot ten Cate, D. H. S.; Gagel, C., 2.
——, classification of.—Calvert, W. R.
——, repeating patterns in relief of.—Hobbs, W. H., 2.
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——, Valais.—Horwitz, L.
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Lang (California).—Eakle, A. S.
Lange Berge (Hesse).—Bernges, R.
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Laterite, Venezuela.—Bendrat, T. A.
——, definition of.—Fermor, L. L.
——, origin of.—Harrison, J. B.; Maclaren, J. M.; Meigen, W.
Latimæandraræa.—Trauth, F., 2.
Latium (Italy).—Agamennone, G.
Laufen Basin (Bernese Jura).—Gutzwiller, A.
Laurentian.—Miller, W. G., 2.
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Laurium (Greece).—Négris, P., 7.
Lausitz district (Saxony).—Andert, H.; Weise, A., 1 & 2.
Lavarone (Venetia).—Trener, G. B.
Lavas, Antarctic.—Fletcher, A. L.
——, Etna.—Starrabba, F. S., 2.
——, Hawaii.—Daly, R. A.
——, Mexico.—Haarmann, E.
——, Tyrol.—Gordon, M. M. O., 2.
La Veta Coalfield (Colo.).—Lakes, A.
Lazurite.—Brouwer, H. A.
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Lead, Canada.—McLeish, J.; *see also* BRITISH COLUMBIA, Dep. Mines.
——, Dakota.—Sharwood, W. J., 2.
——, Illinois.—Cox, G. H., 1 & 2.
——, Queensland.—Ball, L. C.
Lead, Rhenish Prussia.—Zeleny, V.
——, Tasmania.—*See* TASMANIA, Dep. Mines, 1–3.
—— ores, origin of.—Lindgren, W.
Leadville (Colorado).—Bœhmer, M.
Leaia.—Bolton, H., 2; Moysey, L.
Leavad (Caithness).—Carruthers, R. G., 2.
Leda.—Brown, A. P., 2.
Leeds (Yorkshire).—Pickering, G. F.
Leghorn Hills (Tuscany).—Trentanove, G.
Leicestershire.—Bennett, F. W.; Horwood, A. R.
Leidyosuchus.—Gilmore, C. W.
Leine Valley (Hanover).—Kœnen, A. von, 3.
Leiopteria.—Spriestersbuch, J.
Leipzig (Saxony).—Pietzsch, K.
Lena Basin (Siberia).—Gerasimov, A.; Obrutshev, V. A.
Lenne district and Lenne Shales (Westphalia).—Fuchs, A., 2; Schmidt, W. E.; Winterfeld, F., 1, 2, & 4.
Lens (Nord).—Barrois, C., 6.
Leon (Spain).—Saunier, L.
Lepidodendron.—Kidston, R., 2; Nathorst, A. G., 6.
Lepidophyllum.—Nathorst, A. G., 6.
Lepidostrobus.—Zeiller, R., 2.
Lepidotus.—Traquair, R. H.
Leptite.—Gavelin, A.
Leptodesma.—Hind, W.
Leptolepis.—Traquair, R. H.
Lerida (Spain).—Chevalier, M., 2.
Lessines (Hainaut).—Bardou, P.
Lessini district (Venetia).—Fabiani, R., 3.
Leukas I. (Greece).—Renz, C., 10.
Levinia.—Walcott, C. D., 3.
LÉVY, AUG. M., *Obit.*—*See* Anon., 10.
Lewis R. (Yukon Terr.).—Cairnes, D. D.
Lias, Borneo.—Kraus, P. G.
——, Germany.—Brandes, T.; Hoyer, W.; Mestwerdt, A., 2.
——, Gloucestershire.—Woodward, H., 2.
——, Greece.—Renz, C., 1 & 9.
——, Orne.—Lignier, O.
——, Susa Valley.—Franchi, S., 2.
——, Tyrol.—Hahn, F. F., 3.
Licenza Valley (Italy).—Crema, C., 2.
Lichfield (Staffs.).—Landon, J.
Licques (Pas-de-Calais).—Gosselet, J., 8.
Liedberg (Rh.-Pruss.).—Quaas, A.
Liége (Belgium).—Delépine, G., 9; Firket, V.; Fourmarier, P., 1 & 8; Fraipont, C., 2; Halet, F., 3; Ledoux, A.; Lohest, M., 3–6; Stainier, X.
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Liessing Valley (Styria).—Heritsch, F.
Life, origin of animal.—Steinmann, G.
Lignite, Bovey Tracey.—Reid, C., 2.
——, Ontario.—Baker, M. B.
——, Saghalien.—Tichonovich, N.
——, United States.—Campbell, M. R., 1 & 2.

Liguria (Italy).—Rovereto, G.; Termier, P., 7 & 8.
Lille (France).—Douxami, H.
Lima.—Vadász, M. E., 2.
Limargue district (France).—Mouret, G., 2.
Limburg (Dutch).—Klein, W. C., 1–3; Tesch, P.
Limburgite.—Chapman, F., 7.
Lime kunkar—Venkataramaiyya, B. N.
Limestone Alps, Salzburg, &c.—Novak, J.
—— districts, roads, tunnels, and building-stones.—Martel, E. A.
—— plains, Bahia.—Branner, J. C., 2.
—— weathering, Croatia.—Tucán, F., 2; *see also* Karst phenomena, *&c.*
—— with gold crystals, Celebes.—Hirschi, H.
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——, Bernese Alps.—Beck, P., 2.
——, Cyrenaica.—Gregory, J. W., 2; MacDonald, D. P.
——, Dinant.—Harroy, J.
——, Greece.—Négris, P., 8.
——, Illinois.—Udden, J. A.
——, Lombardy.—Mariani, E.
——, Port Clarence.—Kindle, E. M., 2.
——, Savoy.—Révil, J.
——, Tuscany.—Ugolini, R., 2.
——, Venetia.—Fabiani, R., 4.
——, dolomitization of.—Reynolds, S. H., 2.
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——, fragments in St. Andrews agglomerate.—Balsillie, D.
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Limnoscelis.—Williston, S. W., 2.
Limonitic sandstone.—Gagel, C., 5.
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Lincolnshire.—Dalton, W. H.
Lingula.—Chapman, F., 5; Spriestersbuch, J.; Wade, A., 2; *see also* SWEDEN, Antarctic Exped. no. 7.
Lingulella.—Matley, C. A., 2; Walcott, C. D., 3.
Liogryphæa.—Parona, C. F.
Lippe (Germany).—Mestwerdt, A.
Lissa (Silesia).—Tietze, O., 2.
—— I. (Adriatic).—Parona, C. F., 3.
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Lithostrotion.—Smith, J.
Little River Group flora.—Matthew, G. F., 3.
Llandovery Series.—Wade, A., 2.
Llano-Burnet Region (Texas).—Paige, S.
Loanda (Angola).—Freire de Andrade, A.
Locle (Neuchâtel).—Favre, J.
Lœmadjang (Java).—Cool, H.
Lœss, Thuringia.—Siegert, L.; Wuest, E., 2.
Lofoden Is. (Norway).—Sokolov, D. N., 5.
Loftahammar (Gothland).—Gavelin, A.
Loire-Inférieure (France).—Bellanger, E.; Chevalier, M.
Lolo district (China).—Legendre, —.
Lombardy (Italy).—Mariani, E.; Rasch, W.; Toni, A. de, 4.
Lombok Is. (D.E.I.).—Van Heek, J. G. B.
London Metropolitan Water Board.—*See* LONDON.
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Lorraine.—Duerrfeld, V.; Weyhmann, A.
Lorthet cave (Hautes Pyrénées).—Lankester, Sir Edwin R.
Los Angeles (Cal.).—Eakle, A. S.; Merriam, J. C., 1–3; Taylor, W. P.
Los Is. (Gulf of Guinea).—Lacroix, A., 9.
Lot (France).—Mouret, G., 1 & 2.
Loughton (Essex).—Warren, S. H.
Lóu I. (Admiralty Is.).—Stutzer, O.; Wichmann, A.
Louisella.—Walcott, C. D., 2.
Loxoconcha.—Chapman, F.
Lubinite.—Chervinski, P. N.; Morozewicz, J.
Lucca (Tuscany).—Ugolini, R.
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Lüderitz Bay (German S.W. Afr.).—Ashmore, G. P.
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Lugnås (Gothland).—Nathorst, A. G., 3.
Luleå R. (Norrbotten).—Gavelin, A., 2.
Lulindi R. (Congo Basin).—Ball, S. H.
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Lunel-Viel caves (Hérault).—Harlé, E., 2.
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Lunulites.—Canu, F.
Lunzer Lakes (Austria).—Gœtzinger, G.
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Lutetium.—Urbain, G.
Luxemburg (Belgian & Dutch).—Anten, J.; Fourmarier, P., 6.
Luzon (Philippine Is.).—Cox, A. J.; Heremann, R.; Martin, C.; Pratt, W. E.
Lydenburg district (Transvaal).—Spencer, H. A.
LYELL Medals, awards of, to F. A. Bather & A. W. Rowe.—Watts, W. W., 2.
Lys Basin (France).—Gosselet, J., 7.
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Machairodus.—Kormos, T., 3.
Mackenzia.—Walcott, C. D., 2.
McKinley district (Alaska).—Brooks, A. H., 2.

Mâcon (Saône-et-Loire).—Lissajous, M.
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Mactra.—Suter, H.
Madagascar.—Boule, M., 2; Chesneau, G.; Duparc, L., 4; Lacroix, A., 3, 6, 7, & 10; Launay, L. de; Leriche, M.; Zeiller, R.
Madison (Wisconsin).—Schlundt, H.
Madras Presidency (India).—Tipper, G. H., 2.
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Maestrichtian, Algeria.—Blayac, J., 1 & 2.
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Magdalen Is. (Gulf of St. Lawrence).—Beede, J. W.; Clarke, J. M., 7.
Magellan district (S. Am.).—Maier, E.
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——, igneous rock.—Daly, R. A.; Erdmannsdörffer, O. H.; Kœnigsberger, J.
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Maiocercus.—Gill, E. L.
Mala Magura (Hungary).—Vetters, H., 2.
Malahide (Ireland).—Delépine, G., 2.
Malatia (Asia Minor).—Berg, G.
Malay States.—Scrivenor, J. B., 1–3; Wolff, W.
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——, Quaternary. — Calvin, S., 2; Depéret, C.; Harlé, E., 1–3; Hilzheimer, M.; Hinton, M. A. C.; Keller, C.; Kinkelin, F.; Kormos, T., 1 & 2; Kowarzik, R. J.; Lambe, L. M.; Malsburg, K. v. d.; Sœrgel, W., 1 & 2; Wilckens, O., 3.
——, Tertiary.—Borisyak, A. A.; Boule, M.; Chevalier, M., 2; Cooper, C. F.; Hasse, G., 3 & 5; Koch, A.; Kormos, T., 3; Leriche, M., 12; Loomis, F. B.; Merriam, J. C., 1–4; Osborn, H. F., 1–4; Pontier, G., 1, 3, & 4; Reichenau, W. von; Schmidtgen, O.; Selenka, L. M.; Stehlin, H. G., 1–4; Toula, F.
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Man, I. of.—Simmons, W. C.
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——, India.—Fermor, L. L., 2 & 3.
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Manjarabad (Mysore).—Sampat Iyengar, P., 2.
Mapping, geological.—Hoskins, A. J.; *see also* Geological Surveying.
Maps, geological.—Ampferer, O., 3.

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45. Fort-National. 1911.
54. Guelma. 1911.
76. La Mahouna. 1911.
114. Mansourah. 1911.
154. St. Cloud. 1911.
——. Guelma & Bône District. 1 : 400,000. 1910.—Dareste de la Chavanne, J.
——. Tafna Basin (*various*). 1903. —Gentil, L.
Cyrenaica. 1 inch = 20 miles. 1911. —Gregory, J. W., 2.
Egypt. 1 : 600,000. 1911.—Hume, W. F.
——. Extension of the Eocene and Oligocene Strata. 1 : 6,000,000. 1911.—Hume, W. F.
——. Red Sea coast. ½ inch = 50 miles & ¾ inch = 5 miles. 1911.—Wade, A.
AFRICA (South).
Cape of Good Hope. Carnarvon. Kheis Series District. 1 inch = 12 miles. 1911.—Rogers, A. W., 3.

AFRICA (South).

Cape of Good Hope. Griqualand West. Kheis Series District. 1 inch = about 12 miles. 1911.—Schwarz, E. H. L., 4.

——. Montagu District. 1 inch = about 4 miles; & Worcester District. 1 inch = 2 miles. 1911.—Rastall, R. H.

——. Namaqualand. Little Steinkopf District. 1 inch=1500 yards. 1911.—Leipoldt, J. G. W.

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Transvaal. Geological Survey. Central Rand. 1 inch = 5000 feet. 1911.—Mellor, E. T.

——. ——. Klip River Valley. 1 inch =$2\frac{1}{2}$ miles. 1910.—Humphrey, W. A.

——. ——. Lydenburg District. 1 inch = $2\frac{1}{2}$ miles. 1910.—Hall, A. L.

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——. ——. Waterberg District. 1 inch=$2\frac{1}{2}$ miles. 1910.—Kynaston, H.

AMERICA (North).

Alaska (*various*). 1911.—Brooks, A. H.

——. Berner's Bay. 1 inch=1 mile. 1911.—Knopf, A.

Canada.

Alberta. Bighorn Coal-Basin. 1 inch=2 miles. 1911.—Malloch, G. S.

British Columbia. Portland Canal, Stewart, and Bear River Mining District. 1 inch = 2 miles. 1911. —Brock, R. W.

Ontario. Vermilion Lake District. 2 inches = 1 mile. 1911.—Moore, E. S., 2.

——. Lake Sturgeon Goldfield. 1 inch = 40 chains. 1911.—Moore, E. S.

——. Mattagami Basin. 1 inch = 4 miles. 1911.—Baker, M. B.

——. Nipigon Basin. 1 inch = 4 miles. 1910.—Wilson, A. W. G., 2.

——. Thunder Bay District. 1 inch = 1 mile. 1911.—Bowen, N. L.

—— & Quebec. Lake Timiskaming Mining Region. 1 inch = 1 mile. 1911.—Wilson, M. E.

Quebec. Abitibi District. 1 inch= 4 miles. 1911.—Wilson, W. J.

——. Asbestos and Serpentine Region. 1 inch = 1 mile. 1911.—Cirkel, F.

Yukon Terr. Lewis & Nordenskiöld Rivers District. Braeburn & Kynocks Coal Area & Tantalus Coal Area. Both 1 inch=2 miles. 1910. —Cairnes, D. D.

United States.

California. Sargent Oilfield. 1 inch = 1250 feet. 1911.—Jones, W. F.

AMERICA (North).

United States (*cont.*).

Illinois. 1 inch=12 miles. 1906.—Weller, S.

——. Elizabeth Lead & Zinc District. 4 inches = 1 mile. 1910.—Cox, G. H.

Iowa. Butler Co. & Grundy Co. 1 inch = 2 miles. 1910.—Arey, M. F., 1 & 2.

——. Davis Co. 1 inch = 2 miles. 1911.—Arey, M. F., 4.

——. Hamilton Co. & Wright Co. 1 inch=2 miles. 1910.—Macbride, T. H.

——. Harrison Co. & Monona Co. 1 inch = 2 miles. 1911.—Shimek, B.

——. Iowa Co. 1 inch = 2 miles. 1910.—Stookey, S. W.

——. Poweshiek Co. 1 inch = 2 miles. 1910. — Stookey, S. W., 2.

——. Wayne Co. 1 inch = 2 miles. 1910.—Arey, M. F., 3.

Missouri (*various*).—*See* Missouri, Bur. Geol. 1909-10. 1911.

—— & Illinois. St. Louis District. 1 inch=1 mile. 1911.—Fenneman, N. M.

Nevada. Carson City & Lake Tahoe. 1 inch = 2 miles. 1911.—Reid, J. A.

New Mexico. Albuquerque District. 1 : 125,000. 1900. — Herrick, C. L.

New York. Manhattan I. (New York City). 1 foot=about 5 miles. 1911.—Berkey, C. P.

——. Peekskill Cortland Series. 1 inch = about 1 mile. 1911. — Rogers, G. S.

——. Poughkeepsie. 1 inch=1 mile. 1911.—Gordon, C. E.

——. Thousand Islands Region, Alexandria Bay, Cape Vincent, Clayton, Grindstone, & Theresa. All 1 inch = 1 mile. 1910. — Cushing, H.

Oklahoma. 1 inch=15 miles. 1911. —Snider, L. C., 1 & 2.

——. Arbuckle Mts. 3 inches = 4 miles. 1910.—Reeds, C. A., 2.

Texas (*various*). 1911.—Paige, S.

—— (North-Eastern). 1 inch = 15 miles. 1911.—Gordon, C. H.

Washington. Blewett District. 3 inches=1 mile. 1911.—Weaver, C. E.

AMERICA (South).

Uruguay. 1 : 300,000. 1910. — Guillemain, C.

Venezuela. Orinoco R., Caicara District. 1 : 500,000. 1911. — Bendrat, T. A.

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Greenland. Karssuarsuk. 1 : 30,000. 1911.—Heim, Arn., 3.

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Mull, Ross of (Argyll).—Craig, E. H. C.
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MURCHISON medal awarded to R. H. Tiddeman.—Watts, W. W., 2.
Murchisonia.—Priem, F., 3.
Murchisoniella.—Bayarunas, M. V.
Murenberg (Basel).—Leuthardt, F.
Murex.—Brown, A. P., 2.
Murg Valley (Würtemberg).—Muenst, M.
Müsen (Westphalia).—Denckmann, A., 3.
Museum, Belgian Congo, Brussels.—*See* BELGIUM, Ann. Mus. du Congo, 1 & 2.
——, K. k. geologische Reichsanstalt, Vienna.—Kerner, F. von.
——, K.-k. Hofmuseum, Vienna. — Hlawatsch, C.
——, Kilmarnock.—Dunlop, R.
——, Kronstadt (Transylvania).—Toula, F.
——, La Plata.—Lehmann-Nitsche, R.
——, Mainz.—Schmidtgen, O., 2.
——, New York State.—Clarke, J. M., 4.
—— of Practical Geology, Jermyn Street.—Howe, J. A.
——, Royal College of Surgeons. — Burne, R. H.
——, SEDGWICK, Cambridge.—Watson, J.
Musical sand, Eigg.—Carus-Wilson, C.
Muthmannite.—Zambonini, F., 4.
Myalina.—Hind, W.
Mykoni I. (Cyclades).—Cayeux, L., 7.
Myliobatis.—Stromer, E.
Mylonites.—Termier, P., 3 & 7.
Myophoria.—Spriestersbuch, J.
Myriopoda, Carboniferous. — Baldwin, W.
Mysore (India).—Sampat Iyengar, P., 1 & 2; Smeeth, W. F., 1 & 2; Venkataramaiyya, B. N.
Mystriosuchus.—Huene, F. von.
Mytilops.—Hind, W.

Nafooey, Lough (Ireland).—Reynolds, S. H.
Nageiopsis.—Berry, E. W., 4.
Nagelfluh.—Beck, P., 2; Gutzwiller, A.
Nagpur (India).—Fermor, L. L., 2.
Nagy Balogbach, &c.—*See* Balogbach, Nagy, *&c*.
Naiadæ, Quarternary.—Haas, F.
Naiadites.—Bolton, H., 2.
Nakhichevan-chai Valley (Transcaucasia).—Bonnet, P., 2.
Namaqualand (S.W. Afr.).—Cloos, H.; Leipoldt, J. G. W.; Range, P.
Namchik Valley (Assam).—Pascoe, E. H.
Namur (Belgium).—Delépine, G., 4; Dorlodot, L. de, 1–3; Fraipont, C., 4; Harroy, J.; Lohest, M., 3; Maillieux, E.; Malaise, C., 2; Salée, A., 2 & 3.
Nan-sous-Thil (Côte-d'Or). — Boyard, C.
Naosaurus.—Jækel, O., 1 & 3.
Napf Mt. (Lucerne).—Nussbaum, F.
Naphtiano (Maikop).—Charnotzki, S.
Napier (N.Z.).—Hill, H., 2.
Naples (Italy).—Starrabba, F. S.
Narkema.—Handlirsch, A., 3.
Nase (Liége).—Fraipont, C., 2.
Natal (S. Afr.).—Armstrong, J. A. H.; Evans, J. W., 2; Hatch, F. H., 3; *see also* AFRICA (South), Union of, Dep. Mines.
Nately (Hants).—Blundell, G. E.
Nathorstites.—Stolley, E., 4.
Natica.—Bœckh, J. von.
Naticella & *Naticellina*.—Barrande, J.
Natramblygonite.—Schaller, W. T.
Natrolite.—Thugutt, S. J.
Nautilus, Cretaceous. — *See* SWEDEN, Antarctic Exped. no. 6
——, Triassic.—Rosenbach, A.
Navarre (Spain).—Carez, L., 3.
Neanderthal skull.—Marie, A.
Nellore District (Madras Presidency).—Tipper, G. H., 2.
Nelson (N.Z.).—*See* West Nelson.
Nelson Co. (Va.).—Thornton, W. M.
Nemalite.—Fersman, A. E.
Neocolemanite.—Eakle, A. S.
Neocomian.—Kilian, W.
Neogene, Aquitaine.—Cossmann, M.
——, Orsova.—Schreter, Z.
——, Rhône Basin.—Lambert, J., 5.
Neohibolites.—Stolley, E., 3.
Neolenus.—Walcott, C. D.
Neomys.—Hinton, M. A. C.
Nepheline-syenite.—Lacroix, A., 9.
Nephelite, solid solution &.—Foote, H. W.
Nephrite.—Welter, O. A., 1 & 2.
Neptunus.—Toula, F., 4.
Nereites.—Fraipont, C., 4.
Nerike (Sweden). — Sahlstrœm, K. E.
Neuchâtel (Switzerland).—Favre, J.; Schardt, H., 2.
Neuenstadt (Berne).—Schardt, H.
Neureichenau (Bavaria).—Weber, M., 1 & 3.
Neuropteris.—Kidston, R.
Nevada (U.S.A.).—Bell, R. M.; Burgess, J. A.; Cutler, H. C.; Reid, J. A.; Rogers, A. F., 2.

Nevada, Sierra (Cal.).—Reid, J. A.
New Brunswick (Canada).—Bailey, L. W.; Ganong, W. F.; Jennison, W. F.; Matthew, G. F., 1 & 2; Ries, H.; Walker, T. L., 2.
New Caledonia (Pacific).—Lacroix, A., 8.
New England (U.S.A.).—Clapp, F. G., 2; *see also* Massachusetts, *&c.*
New Guinea (Pacific).—Heldring, O. G.; Martin, K., 3; Rawling, C. G.; Schubert, R. J.
New Hampshire (U.S.A.).—Pirsson, L. V., 1 & 2.
New Jersey (U.S.A.).—Bayley, W. S.; Berry, E. W.; Ford, W. E., 3; Fowler, H. W.; Kuemmel, H. B., 1 & 2; Rogers, A. F., 2.
New Mexico (U.S.A.).—Gardner, J. H.; Herrick, C. L.; Huene, F. von, 7; Meinzer, O. E.; Rich, J. L.; Williston, S. W., 2.
New South Wales.—Andrews, E. C., 1 & 3; Baker, R. T.; Cohen, F.; Laseron, C. F.; Maiden, J. H.; Suessmilch, C. A.; Woolnough, W. G., 1 & 2; *see also* NEW SOUTH WALES, Dep. Mines.
New York (U.S.A.).—Clarke, J. M., 4; Cushing, H.; Fenner, C. N.; Gordon, C. E.; Humphreys, E. W.; Kemp, J. F., 2; Loveman, M. H.; Miller, W. J., 2; Newland, D. H., 2; Rogers, G. S.; Ziegler, V.
New York–Catskill aqueduct.—Berkey, C. P.
New Zealand.—Bell, J. M.; Cockayne, L.; Cornish, V.; Farquharson, R. A.; Hall, T. S.; Henderson, J., 1 & 2; Hill, H., 1 & 2; Marshall, P.; Morgan, P. G., 1 & 2; Park, J.; Speight, R., 1–4; Suter, H.; Woodward, H., 4.
Nicaragua.—Carter, T. L.
Niccolite.—Duerrfeld, V., 2.
Nice-Vievola Ry. (Italy).—Roccati, A., 2.
Nickel.—McLeish, J.
Nicobar Is.—Tipper, G. H.
Niegranden (Lithuania).—Boden, K.
Nieves penitentes,' Himalayas.—Workman, W. H.
Nigeria, Northern (W. Afr.).—Falconer, J. D., 1–4; Lamothe, R. de; Woods, H.; *see also* GREAT BRITAIN, Colonial Reports, 3.
——, Southern (W. Afr.).—Anon., 24; Hubert, H.; Newton, R. B., 2; Woodward, A. S., 2; *see also* GREAT BRITAIN, Colonial Reports, 4 & 5.
NIKITIN, S. N., *Obit.—See* Chernyshev, Th. N., 2.
Nile Valley (Egypt).—Blanckenhorn, M.
NILES, W. H., *Obit.—See* Barton, G. H.
Nilssonia.—Berry, E. W., 6.
Nipigon Basin (Ont.).—Wilson, A. W. G., 2.
Nipissing (Ont.).—Goldthwait, J. W.; Hore, R. E.
Niponophyllum.—Stopes, M. C., 4.
Nizhni-Tagilsk (Perm).—Duparc, L., 2; Yakovlev, N.
Nocera district (Umbria).—Lotti, B., 3.
Nodosinella.—Clarke, J. M., 7.
Nodules, clay-ironstone.—Woodward, H., 3.
——, rolled clay, Vistula R.—Krishtafovich, N. I.
Nomenclature, South African strata.—Gregory, J. W., 6.
Nord (France).—Barrois, C., 2–7; Bertrand, P., 3; Breton, L.; Carpentier, A., 2–7; Commont, V.; Gosselet, J.; Mettrier, M.; Pagniez, —; Pruvost, P.
Nordenskiöld R. (Yukon Terr.).—Cairnes, D. D.
Nördlingen (Bavaria).—Branca, W., 3.
Norfolk.—Brydone, R. M., 2; Clarke, W. G., 2; Harmer, F. W.; Irving, A., 3; Lowerison, B.; Newman, L. F.; Strahan, A.
Normandy (France).—Donnet, C.; Dubus, A.; Duteurtre, M.; Lambert, J.; Negre, G.; Pax, F.
Norrbotten (Sweden).—Gavelin, A., 2 & 4; Greim, G.; Hamberg, A., 1–3; Nettleton, S.
Northampton.—Thompson, B.
Northeim (Prussian Saxony).—Kœnen, A. von, 2.
Northumberland.—Burton, R. C., 2; Hall, A. A.; Haselhurst, S. R.; Woolacott, D., 2.
North Carolina (U.S.A.).—Laney, F. B.
Norton Bay (Alaska).—Smith, P. S.
Norway.—Bugge, C.; Fries, T. C. E.; Kiær, J.; Machacek, F.; Milthers, V.; Rekstad, J., 1–4; Reusch, H., 1–3; Rothpletz, A.; Stutzer, O., 4; Werenskiöld, W.
Notagogus.—Traquair, R. H.
Nothofagoxylon.—See SWEDEN, Antarctic Exped. no. 8.
Notochelone.—Vis, C. W. de.
Notogoneus.—Priem, F., 4.
Nottinghamshire.—Gibson, W.; Kendall, P. F.; Moysey, L., 1 & 2; Sherlock, R. L.; Vernon, R. D.
Nova Scotia (Canada).—Donkin, H.; Jennison, W. F.; Ries, H.; Warren, C. H.
Novaya Zemlya (Arctic).—Russanov, V.
Nucula.—Bolton, H., 2; Brown, A. P., 2; Spriestersbuch, J.
Nuculana.—Hind, W.
Nugssuak (Greenland).—Heim, Arn., 2; Ravn, J. P. J., 2.
Numedal (Norway).—Werenskiöld, W.
Nummulitic limestone.—Heim, Arn.; Popescu-Voitesti, I.

Nyasaland. — *See* GREAT BRITAIN, Colonial Reports, 6.
Nyctosaurus.—Williston, S. W., 4.
Nyitra district (Hungary).—Wattenwyl, L.

Oaks Goldfield (Queensl.).—Marks, E. O.
Oaxaca (Mex.).—Birkinbine, J. L. W.
Obsidian.—Merrill, G. P.; Wichmann, A.
Obstchei Syrt (Russia).—Sokolov, D. N., 2.
Oceanic falls of dust.—Thoulet, J., 2.
Oceanography, geology &. — Meunier, S., 8.
Oculina. — *See* SWEDEN, Antarctic Exped. no. 5.
Odenwald (Hesse).—Klemm, G.
Odontaspis.—Stefano, G. de; Stromer, E.
Odontopteryx.—Spulski, B.
Odostomia.—Bayarunas, M. V.
Œgel Lake (Prussia).—Potonié, H., 3.
Oeleghem (Antwerp).—Hasse, G., 5.
Œnsingen (Solothurn).—Gerth, H., 2.
Oenz R. (Switzerland).—Baumberger, E.
Oesia.—Walcott, C. D., 4.
Œtz Valley (Tyrol).—Hradil, G.
Ohau R. (N.Z.).—Adkin, G. L.
Ohio (U.S.A.).—Bassler, R. S.; Bownocker, J. A., 1 & 3; Burroughs, W. G.; Hubbard, G. D.; Hyde, J. E., 1 & 2; Morse, W. C.; Van Horn, F. R.; Worcester, W. G.
Oklahoma (U.S.A.). — Gould, C. N.; Hutchinson, L. L.; Reeds, C. A., 1 & 2; Snider, L. C., 1 & 2.
Old Red Sandstone.—Boulton, W. S.; Woodward, A. S.
Oldhaven Beds.—Briquet, A.
Olenus Series.—Chapman, F., 2.
Oligocene, Dordogne.—Glangeaud, P.
——, Italy.—Fabiani, R., 6; Rovereto, G.
——, Kolozsvár.—Koch, A.
——, Rhenish Prussia.—Quaas, A.
Oligopleurus.—Traquair, R. H.
OMBONI, G., *Obit.*—*See* Dal Piaz, G., 2.
Ompert (Rh.-Pruss.).—Quaas, A.
Omphalophloios.—Cambier, R.
Omphalosaurus.—Merriam, J. C., 7.
Onchus.—Priem, F., 3.
'Onondaga Sea.'—Kindle, E. M., 3.
Ontario (Canada).—Bælz, W.; Baker, M. B.; Bowen, N. L., 1 & 2; Burrows, A. G.; Gibson, T. W.; Goldthwait, J. W.; Grant, C. C.; Hore, R. E.; Miller, W. G., 1 & 2; Moore, E. S., 1–4; Parsons, A. L.; Springer, F.; Wilson, A. W. G., 2; *see also* ONTARIO, Bur. Mines.
Onychella.—Canu, F.
Oolitic Series. — Paris, E. T., 1–3; Richardson, L., 2.
Oolitic iron-ores.—Cayeux, L., 3, 8, & 10.
Oolopygus.—Lambert, J., 4.
Ooze, Thames R.—Friend, H.
Opal.—Hauser, O.; *see also* NEW SOUTH WALES, Dep. Mines.
Ophidia, Tertiary.—Stromer, E.
Ophisaurus.—Kormos, T., 3.
Ophite.—Souza-Brandão, V.
Oppelia.—Favre, F.; Uhlig, V.
Oppenheim (Hesse).—Steuer, A., 4.
Orangia (S. Afr.).—Harger, H. S.
Orbitoidal limestone.—Newton, R. B., 2.
Ordovician, Anticosti.—Schuchert, C., 3.
——, Illinois.—Savage, T. E.
——, Montgomeryshire.—Wade, A., 2.
——, Pembroke.—Pringle, J.
——, Sweden.—Horn, E.
——, Virginia.—Watson, T. L., 2.
——, classification of North American.—Ulrich, E. O., 2.
Ore-deposits, Alaska.—Brooks, A. H.
—— ——, Canada. — Gibson, T. W.; McLeish, J.
—— ——, Great Britain, &c. — *See* GREAT BRITAIN, Home Office, Mines & Quarries, 1–4.
—— ——, Queensland.—Wilson, J. B.
—— ——, Salzburg.—Canaval, R.
—— ——, South Australia.—*See* SOUTH AUSTRALIA, Dep. Mines, 1 & 2.
—— ——, Tasmania.—*See* TASMANIA, Dep. Mines, 1–3.
—— ——, Tyrol.—Lazarevic, M.
—— ——, United States.—Bancroft, H.; Bœhmer, L.; *see also* UNITED STATES, Geol. Surv., 1 & 2.
—— ——, classification of. — Krusch, P., 3.
—— ——, distribution of.—Ransome, F. L.
—— ——, origin of.—Bancroft, G. J.; Keyes, C. R., 4; Stutzer, O., 5.
—— ——, prospecting for. — Baz y Dresch, J.
—— ——, replacement of.—Irving, J. D.
—— ——, secondary enrichment of.—Emmons, W. H.; Finlayson, A. M.
—— ——, sulphidic zones.—Lazarevic, M., 1 & 2.
Orenburg Gov. (Russia).—Sokolov, D. N., 1 & 2.
Orepuki (N.Z.).—Farquharson, R. A.
Orinoco R. (S. Am.).—Bendrat, T. A.
Orjen Mts. (Dalmatia).—Sawicki, R. von.
Orlau (Moravia).—Petrascheck, W.
Orne (France).—Lignier, O.
Oronsay (Hebrides).—Craig, E. H. C.
Orsova (Hungary).—Schreter, Z.
Orthis.—Matley, C. A., 2; Reed, F. R. C., 2; Spriestersbach, J.
Orthoceras.—Stoyanov, A. A.
Orthoclase.—Gonnard, F., 4.
Orthomylacris.—Bolton, H.
Orthonychia.—Barrande, J.

Orthophragmina.—Newton, R. B., 2 ; Yabe, H., 2.
Osmundites.—Kidston, R., 3.
Ossau (Pyrenees).—Lapparent, J.
Ossola (Piedmont).—Craveri, M., 3.
Ostracoda, Carboniferous.—Bolton, H., 2.
——, Devonian.—Spriestersbuch, J.
——, Silurian.—Wade, A., 2.
——, Tertiary.—Chapman, F.
——, stratigraphic value of.—Bassler, R. S., 2.
Ostrea.—Brown, A. P., 2; Lissajous, M. ; Vredenburg, E. W., 2.
Otavi (S.W. Afr.).—Krusch, P.
Otodus.—Stromer, E.
Otolithus.—Stolley, E., 2.
Ottawa (Canada).—Pogue, J. E.
Ottawacrinus.—Springer, F.
Ottoia.—Walcott, C. D., 4.
Ottré (Ardennes).—Rauw, H. de.
Ovulaster.—Blayac, J., 2.
Owens Valley (California). — Trowbridge, A. C.
Oxfordian.—Wójcika, K.
Oxfordshire.—Richardson, L., 2.
Oxhey (Herts).—Kidner, H., 2.
Oxydactylus.—Loomis, F. B.
Oxynoticeras.—Favre, F.
Oxyrhina.—Stefano, G. de.

Pachydiscus. — *See* SWEDEN, Antarctic Exped. no. 6.
Padstow (Cornwall).—Teall, J. J. H.
Pagiophyllum.—Schuster, J.
Paire Limestone.—Delépine, G., 6.
Palæactis.—Pax, F.
Palæga.—Stolley, E.
Palæobotany.—Jongmans, W. J.; Weiss, F. E. ; Zalesski, M. D.
Palæocene, Crimea.—Sloudski, A.; *see also* Tertiary.
Palæocyclus.—Yakovlev, N., 3.
Palæodictyon.—Silvestri, A.
Palæogeography, faunal criteria in. — Bassler, R. S. ; Clarke, J. M., 3 ; Dall, W. H. ; Ruedemann, R., ; Schuchert, C. ; Suess, E., 2; Ulrich, E. O., 2; Vaughan, T. W.; White, D.
Palæolestes.—Vis, C. W. de, 3.
Palæolithic implements. — Boyard, C.; Gagel, C., 4 & 9 ; Wortham, B. H.
—— man.—Commont, V., 3-9 ; Keith, A. ; Marie, A. ; Sturge, W. A. ; see also *Homo*.
—— period.—Schaudel, L., 2.
Palæomachus.—Bather, F. A.
Palæomastodon.—Pontier, G.
Palæoneilo.—Hind, W.
Palæontological Society of America.—Clarke, J. M., 6.
Palæontology, Cambrian. — Walcott, C. D., 1-3.
——, England (N.), 1909. — Sheppard, T.
——, Styria, 1907-1911.—Hilber, V.
Palæontology, vertebrate.—Steinmann, G. ; Zittel, K. von.
——. *See also* INTERNATIONAL Cat. Sci. Lit., K.
Palæophonus.—Bather, F. A.
Palæopsylla.—Dampf, A.
Palæosolen.—Herrmann, F., 2.
Palæotaria.—Leriche, M., 12.
Palæoxyris.—Bolton, H., 2.
Palæozoic faunas, N. America.—Clarke, J. M., 6.
—— folds, Western Alps. — Lugeon, M.
—— land & sea faunas. — *See* Palæogeography.
—— rocks, England & Wales.—Fearnsides, W. G.
—— ——, New Guinea.—Martin, K., 3.
—— ——, Nord.—Gosselet, J.
—— ——, Pyrenees.—Dalloni, M.
—— ——, Styria.—Vetters, H., 3.
—— ——, Yorkshire.—Marr, J. E.
—— Systems, N. America.—Ulrich, E. O., 2.
Palestine.—Blanckenhorn, M. ; Krusch, P., 4.
Palten Valley (Styria).—Heritsch, F.
Pampean.—Outes, F. F.
Panama (C. Am.). — Brown, A. P., 2 ; Landor, A. H. S.
Panarotti (Venetia).—Fabiani, R., 3.
Pantelleria I. (Mediterranean). — Sœllner, J.
Paracyclas.—Hind, W.
Paradoxides Beds, Salop.—Cobbold, E. S. ; Matley, C. A., 2.
Paragalerus.—Barrande, J.
Parahoplites.—Déchy, M. von.
Parahyba (Brazil).—Crandall, R.
Paralogopsis.—Handlirsch, A., 3.
Pararca.—Hind, W.
Parasmilia. — *See* SWEDEN, Antarctic Exped. no. 5.
Parasqualodon.—Hall, T. S.
Parasuchia, Triassic. — Huene, F. von 1 & 2.
Paratirolites.—Stoyanov, A. A.
Paris (France). — Angot, A.; Peroux, E.
Paris & Chartres Ry.—Ramond, G.
Paris Basin (France).—Cossmann, M., 2; Fritel, P. H. ; Guillerd, A. ; Mary, Alb. & Alex. ; Leriche, M., 5, 9, & 15 ; Priem, F., 4; Ramond, G. ; Stehlin, H. G.
Parisite.—Palache, C.
Park City Formation.—Girty, G. H., 3.
Parkinsonia Zone, Westphalia.—Wetzel, W.
Parkstone (Dorset).—Solly, H. S.
Parnassus, Mt. (Greece). — Négris, P., 6.
Parva, Glen (Leicester). — Horwood, A. R.
Pas-de-Calais (France). — Breton, L. Gosselet, J., 2-6; Pagniez, —; Vaillant, L. ; *see also* Arras, *&c.*

Passagem (Brazil).—Derby, O. A.
Patella.—Vadász, M. E., 2.
Patom R., Great & Little (Siberia).—Demine, A.; Kotulski, V.; Preobrazhenski, P. I., 2.
Pearceite.—Van Horn, F. R., 2 & 3.
Peat, Hungary.—Laszló, G. von.
——, Norway.—Fries, T. C. E.
——, Somme Valley. — Commont, V., 4.
——, Sweden.—Hagland, E.; Sernander, R.
——, origin of. — Potonié, H., 1-4; Stremme, H., 2.
Peat-bogs, Rumania.—Popovici, A.
—— ——, Scotland, &c.—Lewis, F. J.
—— ——, Sweden.—Gustafsson, J. P.; Jonsson, F.
—— ——, rock-decomposition &. — Humphreys, E. W.
Pebbles, Belgian coal-shale. — Fourmarier, P., 2.
——, Blanc-Nez Oldhaven Beds.—Briquet, A.
——, Riesengebirge Culm. — Berg, G., 3.
——, facetted.—Bather, F. A., 2; *see also* Windworn stones.
——, formation & uses of. — Dunn, E. J.
——, impressed.—Mengaud, L.
——, origin of coal.—Fraipont, C.
Pecten.—Bœckh, J. von; Brown, A. P., 2; Martin, K.; Vogel von Falckenstein, K.; *see also* SWEDEN, Antarctic Exped. no. 10.
Peekskill (N.Y.). — Loveman, M. H.; Rogers, G. S.
Peglio (Italy).—Cassetti, M., 2.
Pegmatites.—Bastin, E. S.; Palache, C.; Warren, C. H., 2.
Pegmatitic granite.—Palache, C., 1 & 2.
—— minerals.—Duparc, L., 4.
Pegu System.—Vredenburg, E. W.
Peissenberg (Bavaria). — Kœhne, W.; Stuchlik, H.
Pellice R. (Piedmont).—Craveri, M.
Pelmatozoa, Palæozoic.—Hudson, G. H.; Jækel, O.
Peloneustes.—Andrews, C. W., 2.
Pelvoux district (France). — Termier, P.
Pembrokeshire. — Green, J. F. N., 1-3; Jones, W.; Pringle, J.; Small, E. W.; Thomas, Herbert H.
Penacova district (Portugal). — Souza-Brandão, V., 2.
Pench Valley coalfield (India).—Ditmas, F. I. L.
PENHALLOW, D. E., *Obit.—See* Barlow, A. E.
Pennine Range (England). — Howse, T.
Pennsylvania (U.S.A.).—Brown, A. P.; Munn, M. J., 2; Phalen, W. C.; Shaw, E. W.; Smith, E. F.
Pennsylvanian.—Hyde, J. E.
Penshurst Boring (Kent). — Bather, F. A., 5.
Penthetria.—Handlirsch, A.
Peperino.—Sabatini, V., 2.
Perchtoldsdorf (Lr. Austria).—Grengg, R.
Pericalyphe.—Handlirsch, A., 3.
Peridotite.—Gonnard, F.
Perisphinctes.—Déchy, M. von; Salopek, M., 2; Till, A.; Uhlig, V.
Perm (Russia).—Yakovlev, N.
Permian, Algeria.—Joly, A., 3.
——, Djulfa.—Stoyanov, A. A.
——, Durham.—Woolacott, D., *&c.*
——, Greece.—Renz, C., 5.
——, Kashmir.—Das-Gupta, H. C., 3.
——, Madagascar.—Boule, M., 2.
——, New Mexico.—Huene, F. von, 7; Williston, S. W., 2.
——, Northumberland.—Haselhurst, S. R.
——, Nottinghamshire.—Sherlock, R. L.
——, Rhenish Bavaria.—Schuster, M., 2.
——, Tyrol.—Stiny, J.
—— boulders, Yorkshire. — Hawkesworth, E.
—— copper deposits, Europe.—Launay, L. de, 2.
Permo-Carboniferous, Falkland Is. — Halle, T. G.
—— ——, New South Wales.—Laseron, C. F.; Woolnough, W. G., 1 & 2.
—— ——, Utah.—Girty, G. H., 2.
—— —— glaciation.—Bertrand, P.
Permo-Triassic sandstone, Uruguay. — Walther, K.
Perna.—Paris, E. T., 1-3.
Persia.—Reed, F. R. C., 2.
Peru.—Martinez y R., G.; Tarnawiecki, H. C.
Petrographical terms for field use. — Johannsen, A.
Petroleum, Assam.—Capito, C. E.
——, Baku.—Golubyatnikov, D. V.
——, Canada.—McLeish, J.
——, colonial, &c.—*See* GREAT BRITAIN, Home Office, Mines & Quarries, 1-4.
——, Elizabetpol.—Strizlov, S.
——, Gold Coast.—Zuber, R.
——, Japan. — Austen, R. M.; Iki, T.; Inouye, K.
——, Magellan District.—Maier, E.
——, Maikop.—Charnotzki, S.
——, New Zealand.—Henderson, J.
——, Rumania. — Edeleanu, L., 1-3; Lóczy, L. von.
——, Saghalien.—Brown, A. F.; Tichonovich, N.
——, Transylvania.—Lócz, L. von.
——, United States.—Blatchley, R. S.; Bownocker, J. A., 1 & 3; Campbell, M. R., 1 & 2; Forstner, W.; Hutchison, L. L.; Jones, W. F.; Munn, M. J., 2; Shaw, E. W.; Woodruff, E. C.

Petroleum accumulations in the earth.—Day, D. T.
——, monoclinal dips &.—Clapp, F. G.
——, occurrence of.—Thompson, A. B.
——, origin of.—Campbell, M. R.
——, sedimentary deposition of.—Stuart, M.
Petrology, modern.—Harker, A.
——, problems in.—Iddings, J. P., 1 & 2.
——, sedimentary deposits &.—Andrée, K., 3.
Petrosphæria.—Stopes, M. C., 4.
PETTERD, W. F., *Obit.*—*See* Anon., 12.
Phacops.—Collin, L.
PHILIPPI, E., *Obit.*—*See* Anon., 13.
Philippine Is.—Cox, A. J., 1 & 2; Ferguson, H. G.; Heremann, R.; Martin, C.; Milne, J., 4; Pratt, W. E.; Smith, W. D., 1–3; Woolley, M.
Phillipsia.—Nebe, B.
Phlegræan Fields (Naples).—Starrabba, F. S.
Phlogopite.—Pogue, J. E.
Phlyctenodes.—Fabiani, R., 6.
Phöben (Brandenburg).—Sœnderop, F.
Pholadomya.—Déchy, M. von.
Pholidophorus.—Traquair, R. H.
Phonolite.—Cornu, F.; Finckh, L.; Gagel, C., 7.
Phos.—Brown, A. P., 2.
Phosphates, Archæan & recent.—Stutzer, O., 4.
——, Bornholm & Denmark.—Garbœ, A.
——, Es Salt (Palestine).—Krusch, P., 4.
——, Eure-et-Loir.—Regnault, E.
——, Idaho, Utah, & Wyoming.—Girty, G. H., 3.
——, New Brunswick & S. Carolina.—Matthew, G. F.
——, Russia.—Chervinski, V.; Ivanov, A. P.
Photographs of geological interest.—Watts, W. W., 5.
Phylloceras.—Vadász, M. E., 2.
Phyllocladoxylon & Podocarpoxylon.—*See* SWEDEN, Antarctic Exped. no. 8.
Phyllodes, Echinoidean.—Hawkins, H. L., 2.
Phyllopoda, Carboniferous.—Bolton, H., 2.
Physiography of New Brunswick.—Ganong, W. F.
Piave R. (Venetia).—Toni, A. de.
Picea & Pinus, Quaternary.—Sukachev, V. N.
Piedmont (Italy).—Craveri, M., 1 & 3; Franchi, S., 2 & 3; Monaco, E.; Roccati, A., 1 & 2; Sacco, F., 3 & 4.
Piedmont Slates, Virginia.—Watson, T. L., 2.
Pierre d'Ostel (Aisne).—Leriche, M., 14.
'Pietre-verdi' series, Susa Valley.—Franchi, S., 2.
Pikaia.—Walcott, C. D., 4.
Pillow-lavas.—Dewey, H., 2; Tyrrell, G. W.
Pilsen (Bohemia).—Winkler, A.
Pinakodendron.—Carpentier, A., 6.
Pinerolo (Piedmont).—Craveri, M.
Pinner (Middlesex).—Kidner, H.
Pinnipedes, Tertiary.—Leriche, M., 12.
Pioche district (Nevada).—Bell, R. M.
Pioraco (Apennines).—Fucini, A., 2.
Pipes, diamantiferous.—Harger, H. S.
Pir Panjal range (Kashmir).—Middlemiss, C. S.
Pitar.—Brown, A. P., 2.
Pitch-coal, Bavaria.—Ammon, L. von.
Pitchstone.—Brauns, R., 2; Sauer, A.; Stutzer, O., 3.
Pithecanthropus Beds, Java.—Selenka, L. M.
Pitted limestone.—Dixon, E. E. L.
Pittsburg (Pa.).—Schellenberg, F. Z.
Placer gold.—Ahnert, A.; Kotulski, V.; Preobrazenski, P. I., 2; Stalnov, G., 1 & 2; Weaver, C. E.; *see also* BRITISH COLUMBIA, Dep. Mines.
Placunopsis.—Vadász, M. E., 2.
Plains, origin of N. American.—Keyes, C. R., 3.
Planorbis.—Kennard, A. S.
Plants, Carboniferous.—Arber, E. A. N.; Bertrand, P., 3 & 4; Cambier, R.; Carpentier, A., 2, 5, & 6; Chodat, R.; Collins, F. G.; Dachnowski, A.; Grosch, P.; Jongmans, W. J., 2; Kerner, F. von; Kidston, R., 1 & 2; Maslen, A. J.; Matthew, G. F., 3; Nathorst, A. G., 6; Potonié, H., 1 & 2; Thomas, H. Hamshaw, 2; Vernon, R. D.; Weiss, F. E.; Wieland, G. R., 2; Zeiller, R., 2.
——, Cretaceous.—Bartholin, C. T.; Berry, E. W., 1 & 6; Knowlton, F. H.; Lignier, O., 2 & 3; Stopes, M. C., 1–4; Vis, C. W. de, 1 & 3; Welsch, J., 2; Wieland, G. R., 2.
——, Devonian.—Johnson, T.; Zalesski, M. D., 2.
——, Jurassic.—Berry, E. W., 4; Gothan, W.; Nathorst, A. G., 4 & 5; Seward, A. C., 3; Thomas, H. Hamshaw; Weiss, F. E.; Wieland, G. R., 2 & 3.
——, Permian.—Bertrand, P., 5; Weiss, F. E.
——, Permo-Carboniferous.—Halle, T. G.; Seward, A. C.
——, Quaternary.—Fries, T. C. E.; Gagel, C., 8; Lewis, F. J.; Reid, C.
——, Silurian.—Chapman, F., 5 Matthew, G. F., 2.
——, Tertiary.—Berry, E. W., 3 & 5; Fliegel, G., 2; Freire de Andrade, A.; Kidston, R., 3; Laurent, L.; Leriche, M., 8; Reid, C., 2; Yokoyama, M.; *see also* SWEDEN, Antarctic Exped. no. 3.

Plants, Triassic. — Brown, A. P.; Schuster, J.; Zeiller, R.
——, geological climates &.—Carthaus, E.; Gothan, W., 2; Nathorst. A. G.
——, marine strata & fossil. — White, D.
——, origin of new types of.—Oswald, F., 1–3.
——, recent & fossil.—Seward, A. C., 2.
Platecarpus.—Huene, F. von, 4.
Platinum, Urals.—Duparc. L., 1 & 2.
—— gravels, Orepuki (N.Z.).—Farquharson, R. A.
Platyceras.—Barrande, J.
Platymylacris.—Handlirsch, A., 3.
Plectrodus.—Priem, F., 3.
Pleistocene, Los Angeles.—Taylor, W. P.; *see also* Quaternary, *&c.*
Pleonaste.—Viola, C., 2.
Plesiosaurus.—Andrews, C. W., 1 & 2.
Pleurocaris.—Calman. W. T., 1 & 2.
Pleuromya.—Déchy. M. von.
Pleurotoma. — Bayarunas, M. V.; Leriche, M., 11.
Pliocene, Antwerp.—Hasse, G., 4; Kœnen. A. von, 4.
——, Artois.—Briquet, A., 5.
——. Cythera.—Nelli. B.
——. East Anglia.—Kennard, A. S.
——. Imola.—Stefano, G. de.
——. Polgárdi cave-fauna.—Kormos, T., 3.
——. Rumania.—Pascu, R.
——. *See also* Tertiary.
Po Valley (Italy).—Chelussi. I., 2.
Pōchlara (Lr. Austria).—Hlawatsch, C., 2.
Podokesaurus.—Talbot, M.
Podolite.—Schaller, W. T., 5.
Podozamites.—Nathorst. A. G., 5.
Pola (Istria).—Waagen, L.
Poland.—Novak, J., 2.
Polgárdi (Hungary).—Kormos. T., 3.
Pollau Mts. (Moravia).—Rzehak, A.
Pollicipes.—Withers, T. H.
Pollingeria.—Walcott, C. D., 4.
Poltava Gov. (Russia).—Tutkovski. P.
POLWHELE, T. R., *Obit.*—*See* Watts, W. W., 2.
Polybasite.—Van Horn, F. R., 2.
Polyptycodon.—Schardt, H., 2.
Polyzoa.—*See* Bryozoa.
Pomerania (N. Germany).—Deecke. W.
Pompeii (Italy).—Bassani, F.; Oglialoro, A.
Ponder's End (Middlesex).—Warren, S. H., 2.
Ponthierville (Belgian Congo).—Passau, G.
Pontian.—Cayeux. L., 6.
Popanoceras.—Stoyanov, A. A.
Popilani (Kovno).—Boden, K.
Populocaulis.—Stopes, M. C., 4.
Porcellia.—Barrande, J.
Porcupine (Ont.).—Burrows, A. G.
Porphyry, Caucasus.—Déchy. M. von.
——, Döbritz.—Stutzer, O., 3.
Porphyry, Elba.—Novarese, V., 1 & 2.
——, Hainaut.—Bardou, P.
Port Clarence (Alaska).—Kindle, E. M., 2.
Porth Clais (Pembroke).—Leach. A. L.
Portici (Campania).—Casoria, E., 2.
Portoferraio (Elba).—Lotti. B.
Portugal.—Choffat, P., 1–5; Pereira de Sousa, F. L.; Priem, F., 3.
——, colonial geology.—Bello, A. d'O.; Choffat, P., 4.
Posen (Prussia).—Tietze, O.
Posidonia.—Fritel, P. H.
Posidonomya.—Boehm, G.; Hind, W.
Poteriocrinus.—Springer. F., 2.
Potomac Group.—Berry, E. W., 6.
Poughkeepsie (N.Y.).—Gordon, C. E.
Poweshiek Co. (Iowa).—Stookey, S. W., 2.
Powis Castle (Montgomery).—Wade, A., 2.
Pre-Cambrian, New York & Sweden.—Kemp. J. F., 2.
——, Ontario & Scotland.—Miller, W. G.
——, Texas.—Paige. S.
Precious stones, United States.—*See* UNITED STATES, Geol. Surv., 2: *also* Gems, *&c.*
Predazzo (Tyrol).—Penck, W.
Preobrazheniya I. (Arctic Siberia).—Sokolov, D. N., 4.
Pressure effects on minerals.—Spezia, G.
Prestwichia.—Moysey, L.
Pretoria (Transvaal).—Wagner, P. A., 2.
Priabona Beds.—Kranz. W., 3.
Prieska (S. Africa).—Rogers, A. W., 5.
Prince, Grotte du (Mentone).—Boule, M., 3.
Prince Albert Division (S. Africa).—Versfeld, W.
Prince Charles Foreland (Spitsbergen).—Bruce, W. S.
Prince William Sound (Alaska).—Grant, U. S., 1 & 2.
Přischow (Bohemia).—Winkler, A.
Proarcestes & *Procladisites.*—Salopek, M.
Proarinaria & *Procrucibulum.*—Barrande, J.
Productus-limestone, Salt Range.—Grœber, P.
Proetus.—Reed, F. R. C., 2.
Prosigaretus.—Barrande, J.
Protaxocrinus.—Springer, F.
Proteites.—Salopek, M., 2.
Protomeryx.—Loomis, F. B.
Protopecten.—Hind, W.
Provence (France).—Cotte, C.; Lallemand, C.; Repelin, J.
Prussia.—Berg, G., 2; Beyschlag, F.; *see also* Silesia.
——, borings recorded.—Keilhack, K.
—— (East).—Burr, M.; Harbort, E., 6; Klebs, R.; Tornquist, A.
—— (West).—Hermann, R.; Vogel von Falckenstein, K.

Prussian Saxony.—Andrée, K.; Linstow, O. von; Stahl, A.
Psammosteus.—Woodward, A. S., 3.
Pseudobaiera.—Matthew, G. F., 3.
Pseudocaninia.—Yakovlev, N., 3.
Pseudoedmondia.—Bolton, H., 2.
Pseudomorphs.—Pogue, J. E.
Pteria.—Newton, R. B., 2.
Pterodactyls.—Huene, F. von, 3; Williston, S. W., 4.
Pteronites.—Hind, W.
Pterophyllum.—Vis, C. W. de.
Pteropoda, Silurian.—Zelizko, J. V.
Ptychites.—Salopek, M.
Ptychodus.—*See* SWEDEN, Antarctic Exped. no. 4.
Ptychoparia.—Chapman, F., 2; Cobbold, E. S.
Ptygmatis.—Déchy, M. von.
Puerco Formation.—Gardner, J. H.
Puisaye (Eure-et-Loir).—Regnault, E.
Punjab (India).—Daru, N. D.
Purbeck Hills (Dorset).—Ord, W. T.
Puspökfürdö (Hungary).—Kormos, T.
Puy de Dôme (Auvergne).—Gonnard, F., 1 & 4.
Pyatigorsk (Russia).—Orlov, N. A.
Pycnodus.—Stromer, E.
Pyrenees.—Belloc, É.; Bertrand, L., 1 & 2; Carez, L., 1 & 2; Dalloni, M.; Lankester, Sir Edwin R.; Lapparent, J. de; Mengel, O.; Pruvost, P., 2.
Pyrites, Bosnia.—Lœw, M., 2.
——, Dognácska.—Zimanyi, K.
——, Mte. Somma.—Zambonini, F., 3.
——, New York.—Loveman, M. H.
——, Ontario.—Moore, E. S.
——, arsenical.—Beutell, A.; *see also* Iron, *&c.*
Pyromorphite.—Bowles, O.
Pyrrhotite.—Pogue, J. E.; Smyth, C. H., *fil.*

Quarries, New York.—Newland, D. H., 2.
Quartz.—Holmquist, P. J.; Merwin, H. E.
—— replaced by carbon in Witwatersrand banket.—Young, R. B.
—— crystals.—Gonnard, F., 2.
Quartz-diabase, Ontario.—Hore, R. E.
—— -gangue, igneous rocks.—Baumgærtel, B.
—— -keratophyre, Greece.—Milch, L., 3; Renz, C., 3.
—— -phyllite.—Toula, F., 3.
Quartzite, Bohemia.—Sokol, R.; Zelizko, J. V.
——, Loftahammar.—Gavelin, A.
——, Schötmar.—Fraas, E.
Quaternary, Baltic.—Sernander, R., 2.
——, Berne.—Schardt, H.
——, California.—Miller, L. H.
——, Cockburn I.—*See* SWEDEN, Antarctic Exped. no. 10.
——, Denmark.—Jessen, A.
——, Egypt.—Hume, W. F., 3.
Quaternary, France, Commont, V., 1, 3–6, & 9; Gosselet, J.; Kilian, W., 2.
——, Germany.—Deecke, W.; Fliegel, G.; Gagel, C., 1–4, 8, & 9; Harbort, E., 6; Hermann, R.; Jækel, O., 4; Kinkelin, F.; Kœnen, A. von; Lozinski, W. von; Schmidt, M.; Schumacher, E.; Schwertschlager, J., 2; Siegert, L., 2; Tornquist, A., 2; Weise, A., 2; Wuest, E., 2–4; Zeise, O.
——, Hungary.—Horusitzki, V.; Kormos, T., 1–3; Schafarzik, F.
——, Italy.—Craveri, M.; Pagani, U.; Trentanove, G.
——, Lake Constance district.—Schmidle, W.
——, Moravia.—Rzehak, A., 2.
——, Moselle R.—Leppla, A.
——, New Zealand.—Adkin, G. L.; Marshall, P.; Speight, R.
——, Scheld Basin.—Lorié, J.
——, Siberia (N.).—Sukachev, V. N.
——, Sweden.—Andersson, G., 1 & 2; Aronson, G.; Geer, G. de; Jonsson, F.; Munthe, H., 1 & 2.
——, United States.—Calvin, S., 2 & 3; Shaw, E. W.
——, Yorkshire.—Gilligan, A.
——, Yukon.—Lambe, L. M.
—— man.—Commont, V., 8; see also *Homo*, Implements, *&c.*
Quebec (Canada).—Wilson, M. E.
Queen Charlotte Is. (B.C.).—Graham, R. P. D.
Queensland.—Ball, L. C.; Chapman, F., 3; Etheridge, R., *fil.*; Marks, E. O.; Vis, C. W. de, 1–4; Wilson, J. B.
Quicksilver.—Canfield, F. A.; Kossmat, F., 2.
Quiestède (Pas-de-Calais).—Pagniez, —, 3.
Quina (Charente).—Martin, H.
Quincy (Mass.).—Palache, C.; Warren, C. H., 2.

Radioactive substances in Bavaria.—Ammon, L. von, 2.
Radioactivity of Antarctic igneous rocks.—Fletcher, A. L.
——, geology &.—Chamberlin, T. C., 2.
——, earth &.—Moureu, C.; Strutt, R. J.
——, rocks &.—Gockel, A.; Joly, J.
——, water &.—Schlundt, H.; Thompson, B., 2.
Radiolites.—Franke, F.; Parona, C. F., 3.
Radium minerals.—Krusch, P., 2; Pierret, R.
Radstädter Tauern (Salzburg).—Redlich, K. A.
Rainfall & well-water, Kent.—Cook, R.
Raised beaches.—Chautard, J.; Kranz, W., 2; Leach, A. L.; Reusch, H., 2.
Rákosd (Hungary).—Gaal, S. von.
Rammelsberg (Harz).—Lindgren, W., 3.

Ramsey I. (Pembrokeshire).—Green, J. F. N., 2.
Rancho La Brea (Cal.).—Merriam, J. C., 1, 3, & 6; Taylor, W. P.
RANDALL, J., *Obit.—See* Watts, W. W., 2.
Rangifer.—Sœrgel, W.
Rantau Panjang (F.M.S.).—Scrivenor, J. B.
Raritan Formation.—Berry, E. W.
Rathite.—Solly, R. H.
Rauhgern Mt. (Bavaria).—Haniel, C. A.
Ravenna (Italy).—Chelussi I., 3.
Ravensberg district (Westphalia). — Stille, H., 3.
Ravenstonedale (Westmorland).—Watney, G. R.
Ravenswood (N.Y.).—Ziegler, V.
Ravines, Aragon.—Briet, L., 1 & 2.
Rawhide (Nev.).—Rogers, A. F., 2.
Red deer, prehistoric drawing of. — Lankester, Sir Edwin R.
Red Sea.—Crossland, C.
Reichenstein (Bohemia).—Heritsch, F., 2.
Reindeer, Mentone Quaternary. — Wright, W.; see also *Rangifer*, &c.
Reindeer period, Somme Valley.—Commont, V., 7.
Reineckia.—Till, A.
Remscheid Beds.—Spriestersbuch, J.
Renaix (French Flanders). — Briquet, A., 2; Halet, F., 4.
Renaultia.—Carpentier, A., 6.
Rennebu (Norway).—Bugge, C.
Rensing (Holstein).—Gagel, C.
Répáshuta (Hungary).—Hillebrand, E. 2.
Reptilia, Carboniferous. — Fourmarier, P., 9.
——, Cretaceous. — Andrews, C. W.; Fritsch, A.; Gilmore, C. W.; Hooley, R. W.; Huene, F. von, 2 & 4; Knowlton, F. H., 3 & 4; Pompeckj, J. F., 4; Schardt, H., 2; Vis, C. W. de; Wegner, T., 2; Wieland, G. R.
——, Jurassic. — Andrews, C. W., 2; Fraas, E., 2; Huene, F. von, 4; Sauvage, H. E.; Tornier, G., 1 & 2; Virchow, H.
——, Permian. — Jækel, O.; Moodie, R. L.; Williston, S. W., 2–5.
——, Permo-Triassic.—Broom, R.
——, Quaternary.—Kormos, T.
——, Tertiary. — Boule, M.; Kormos, T., 3; Stromer, E.; Wegner, T.
——, Triassic. — Huene, F. von, 1–3; Jækel, O., 3; Merriam, J. C., 5 & 7.
——, birds &.—Abel, O.
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Reteocrinus.—Springer, F.
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Rhabdocidaris & *Rhacophyllites*. — Déchy, M. von.
Rhætic, Germany.—Mestwerdt, W., 2.
——, Leicestershire.—Horwood, A. R.
——, Somerset.—Richardson, L.
——, Susa Valley.—Franchi, S., 2 & 3.
—— quartzite, Schötmar.—Fraas, E.
Rhenea I. (Cyclades).—Cayeux, L., 7.
Rhenish Bavaria.—Heim, F.; Schuster, M., 1 & 2; Weber, M., 2.
Rhenish Hesse.—Steuer, A., 1–4.
Rhenish Prussia.—Berger, L.; Fliegel, G., 1–2; Fuchs, A.; Geib, K.; Goldschmidt, V., 2; Gothan, W.; Holzapfel, E.; Kranz, W.; Krause, P. G., 2; Leppla, A.; Quaas, A.; Spriestersbuch, J.; Winterfeld, F., 1–4; Wunstorf, W.; Zeleny, V.; Zirkel, F.
Rhenish slate-district horsts. — Kranz, W.
Rhinobatus.—Eastman, C. R.
Rhinoceros.—Hasse, G., 3; Hermann, R.; Koch, A.; Pagani, U.; Wuest, E., 3.
Rhine Valley, Lr. — Schumacher, E.; Steuer, A., 3.
—— ——, Upper.—Hug, J.; Rollier, L.
Rhodesia (S. Afr.). — Hahn, P. D.; Maufe, H. B.; Molyneux, A. J. C.; Zealley, A. E. V., 1 & 2; *see also* RHODESIA (S.), Geol. Surv.
Rhodonite.—Ford, W. E., 3.
Rhön Mts. (Germany).—Kranz, W., 4; Philipp, H.
Rhône Basin. — Æberhardt, B.; Hess, H.; Kilian, W., 2; Lambert, J., 5; Lugeon, M.; Romer, E.
—— glacier, Switzerland.—Horwitz, L.; Nussbaum, F., 2.
Rhynchonella.—Nalivkin, V.; Reed, F. R. C., 2; Spriesterbuch, J.
Rhyolites.—Lévy, A. M.
Riazan Gov. (Russia).—Prigorovski, M.
Ribatejo district (Portugal). — Choffat, P., 5.
Richmond (Mass.).—Taylor, F. B.
RICHTER, P. B., *Obit.—See* Nathorst, A. G., 2.
Riebeckite.—Palache, C., 2; Warren, C. H.
Riechelsdorf (Saxony).—Duerrfeld, V., 2.
Ries (Bavaria).—Branca, W., 1 & 3.
Riesengebirge (Silesia). — Berg, G., 2 & 3; Milch, L.
Rietfontein Series.—Mellor, E. T.
Riff, ancient straits of (Morocco). — Gentil, L., 5.
Rima R. (Hungary).—Vitalis, S.
Ringel Group (Glarus). — Blumenthal, M.
Rinneite.—Rinne, F.
Rio Grande do Norte (Brazil).—Crandall, R.
Ripple-marks, Ohio.—Hyde, J. E., 2.
——, Rhenish Devonian. — Krause, P. G.
——, Rostock bricks.—Geinitz, E.

River robbing, Geneva district.—Chaix, E.
—— ——, Paris Basin.—Guillerd, A.
—— ——, Pyrenees.—Belloc, É.
Rivers, ancient Dutch.—Hasse, G.
——, Bengal.—Inglis, W. A.
——, Devon.—Strahan, A., 2.
——, underground, Spain.—Briet, L., 2.
Road-metal, Alabama.—Prouty, W. F.
—— ——, Hungary.—Schafarzik, F.
—— ——, Oklahoma.—Snider, L. C., 2.
—— ——, Washington.—Landes, H.
Robertson (S. Africa).—Rastall, R. H.
Roccapietra (Sesia Valley). — Lincio, G., 2.
Rochdale (Lancs.). — Baldwin, W.; Woodward, H., 3.
Rochette (Liége).—Fourmarier, P.
'Rock & Spindle,' St. Andrews. — Balsillie, D.
Rock-boring Echinids.—Romanes, J.
Rock-crystal, structure of.—Tutton, A. E. H.
Rock-decomposition, peat-bogs.—Humphreys, E. W.
—— -deformation, tidal load &.—Chree, C.
—— -falls.—Hankar-Urban, A.
—— -minerals.—Iddings, J. P.
—— -streams.—*See* Stone-rivers, *&c.*
Rocks, crystalline.—Grubenmann, U.
——, decrystallization of.— Lœwinson-Lessing, F., 1–6.
——, eutectics of.—Rhodes, J. E. W.
——, melting-points of.—Kœnigsberger, J.
——, metasilicate.—Sosman, R. B.
——, names of.—Johannsen, A.
——, origin of igneous. — Lœwinson-Lessing, F., 1–6.
——, plasticity of.—Milch, L., 2.
——, radioactivity of.—Gockel, A.
——, radium in.—Joly, J.
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——, Vienna Hof Museum.—Hlawatsch, C.
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Roeang I. (D.E.I.).—Koperberg, M.
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Rosseliana.—Canu, F.
Rostock (Mecklenburg).—Geinitz, E.
Rothwell Haigh (Yorks). — Hawkesworth, E.
Rotomahana (N.Z.).—Hill, H.
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Saffron Walden (Essex).—Maynard, G.
Saghalien I.—Brown, A. F.; Tichonovich, N.
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St. Gall (Switzerland).—Heim, Arn.
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St. Louis (Mo.).—Fenneman, N. M.
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Sardinia.—Dreger, J.; Franchi, S.; Lovisato, D.; Millosevich, F., 2; Parona, C. F.
Sarek Mts. (Norrbotten).—Hamberg, A., 2; Seidlitz, W. von.
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——, Western Is. — Wright, W. B., 1 & 2.
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——, Bohemia.—Barrande, J.; Želízko, J. V.
——, Canada.—Grant, C. C.; Matthew, G. F., 2; Schuchert, C., 3; Springer, F.
——, Illinois.—Savage, T. E.
——, Kellerwald.—Denckmann, A., 1 & 2.
——, Leipzig.—Pietzsch, K.
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——, Norway.—Kiær, J.
——, Portugal.—Priem, F., 3; Souza-Brandão, V., 2.
——, Queensland.—Etheridge, R., *fil.*
——, Styria.—Kowatsch, A.
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——, Bukovina. — Merhart, G. von; Uhlig, V., 2.
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Bihang k. svenska Vet.-Akad. Handl. Bihang till kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.

Bol. Com. Mapa geol. España. Boletin de la Comisión del Mapa geológico de España. Madrid.

Bol. Comm. geogr. e geol. S. Paulo. Boletim da Commissão geographica e geologica do Estado de São Paulo. São Paulo (Brazil).

Bol. Ing. Minas, Perú. Boletín del Cuerpo de Ingenieros de Minas del Perú. Lima.

Bol. Inst. geogr. Argent. Boletín del Instituto geográfico Argentino. Buenos Aires.

Bol. Inst. Geol. España. Boletin del Instituto Geológico de España. Madrid.
Bol. Inst. geol. México. Boletín del Instituto geológico de México. Mexico City.
Bol. Soc. geogr. Lima. Boletín de la Sociedad geográfica de Lima. Lima.
Bol. Soc. Geogr. Lisboa. Boletim da Sociedade de Geographia de Lisboa. Lisbon.
Bol. Soc. Nac. Minería, Santiago. Boletín de la Sociedad Nacional de Minería. Santiago de Chile.
Boll. R. Com. geol. Ital. Bollettino del Reale Comitato geologico d'Italia. Rome.
Boll. Soc. geol. ital. Bollettino della Società geologica italiana. Rome.
Brit. Assoc. Adv. Sci. British Association for the Advancement of Science. London.
British Columbia, Dep. Mines. British Columbia: Department of Mines. Victoria (B.C.).
Bull. Acad. Imp. Sci., St. Pétersb. Bulletin de l'Académie Impériale des Sciences. St. Petersburg.
Bull. Acad. Roy. Belg. Bulletins de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique. Brussels.
Bull. Am. Mus. Nat. Hist., N.Y. Bulletin of the American Museum of Natural History. New York.
Bull. Anglo-Egypt. Sudan Geol. Surv. Bulletin of the Anglo-Egyptian Sudan Geological Survey. Khartoum.
Bull. Assoc. franç. Av. Sci. Bulletin de l'Association française pour l'Avancement des Sciences. Paris.
Bull. Buffalo Soc. Nat. Sci. Bulletin of the Buffalo Society of Natural Sciences. Buffalo (N.Y.).
Bull. Bur. Mines, B.C. Bulletin of the Provincial Bureau of Mines, British Columbia. Victoria (B.C.).
Bull. Bur. Mines, Ontario. Bulletin of the Bureau of Mines. Ontario.
Bull. Cal. State Mining Bur. Bulletin of the Californian State Mining Bureau. San Francisco.
Bull. Chicago Acad. Geol. Surv. Bulletin of the Chicago Academy of Science, Geological and Natural History Survey. Chicago (Ill.).
Bull. Com. géol. Russie. Bulletins du Comité géologique. St. Petersburg.
Bull. Comm. géol. Finlande. Bulletin de la Commission géologique de Finlande. Helsingfors.
Bull. Connect. Geol. & Nat. Hist. Surv. Bulletin of the Connecticut State Geological and Natural History Survey. Hartford (Conn.).
Bull. Dep. Mines & Geol. Surv., Tasmania. See *Tasm. Dep. Mines.*
Bull. Geol. Inst. Univ. Upsala. Bulletin of the Geological Institution of the University of Upsala. Upsala.
Bull. Geol. Soc. Am. Bulletin of the Geological Society of America. Rochester (N.Y.).
Bull. Geol. Surv. Alabama. Bulletin of the Geological Survey of Alabama. University & Montgomery (Ala.).
Bull. Geol. Surv. Georgia. Bulletin of the Geological Survey of Georgia. Atlanta (Ga.). See also *Georgia, Geol. Surv.*
Bull. Geol. Surv. New Jersey. Bulletin of the Geological Survey of New Jersey. Trenton (N.J.).
Bull. Geol. Surv. N.Z. See *N.Z. Dep. Mines, Geol. Surv.*
Bull. Geol. Surv. Ohio. Bulletin of the Geological Survey of Ohio. Columbus (Ohio).
Bull. Geol. Surv. Queensl. Bulletin of the Geological Survey of Queensland (Department of Mines). Brisbane.
Bull. Geol. Surv. Victoria. Bulletin of the Geological Survey of Victoria. Melbourne.
Bull. Geol. Surv. W. Austr. Bulletin of the Geological Survey of Western Australia. Perth (W. Austr.).
Bull. Geol. Univ. Calif. Bulletin of the Department of Geology, University of California. Berkeley (Cal.).
Bull. Illinois Geol. Surv. Bulletin of the Illinois State Geological Survey. Urbana (Ill.).
Bull. Imp. Earthq. Comm. Tokyo. Bulletin of the Imperial Earthquake Commission. Tokyo.
Bull. Imp. Inst. Bulletin of the Imperial Institute. London.
Bull. Intern. Acad. Sci. Cracovie. Bulletin International de l'Académie des Sciences. Cracow.
Bull. Lab. de Géol. &c., Univ. Lausanne. Bulletin des Laboratoires de Géologie, Géographie physique, Minéralogie et Paléontologie de l'Université de Lausanne. Lausanne.

Bull. Mus. Comp. Zool. Bulletin of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).

Bull. Mus. Hist. nat. Paris. Bulletin du Muséum d'Histoire naturelle. Paris.

Bull. Mus. N.Z. Bulletin of the Dominion Museum, New Zealand. Wellington (N.Z.).

Bull. Mysore Geol. Dep. Bulletin of the Mysore Geological Department. Bangalore.

Bull. N. Carolina G. S. Bulletin of the North Carolina Geological Survey. Raleigh (N. Car.).

Bull. N.Y. State Mus. Bulletin of the New York State Museum. Albany (N.Y.).

Bull. Nat. Hist. Soc. New Brunswick. Bulletin of the Natural History Society of New Brunswick. St. John (N.B.).

Bull. Oklahoma Geol. Surv. Bulletin of the Oklahoma Geological Survey. Norman (Okl.).

Bull. School of Mines, Missouri Univ. Bulletin of the School of Mines and Metallurgy, Missouri University. Rolla (Mo.).

Bull. Sec. Sci. Acad. Roumaine. Bulletin de la Section scientifique de l'Académie Roumaine. Bucarest.

Bull. Serv. Carte géol. Algérie. Bulletin du Service de la Carte géologique de l'Algérie. Algiers.

Bull. Serv. Carte géol. France. Bulletin des Services de la Carte géologique de la France. Paris.

Bull. Soc. belge Géol., Brux. Bulletin de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.

Bull. Soc. franç. Min. Bulletin de la Société française de Minéralogie. Paris.

Bull. Soc. fribourg. Sci. nat. Bulletin de la Société fribourgeoise des Sciences naturelles. Fribourg.

Bull. Soc. géol. France. Bulletin de la Société géologique de France. Paris.

Bull. Soc. géol. Norm. Bulletin de la Société géologique de Normandie. Le Havre.

Bull. Soc. Hist. nat. Savoie. Bulletin de la Société d'Histoire naturelle de Savoie. Chambéry.

Bull. Soc. Hist. nat. Toulouse. Bulletin de la Société d'Histoire naturelle de Toulouse. Toulouse.

Bull. Soc. Imp. Nat. Moscou. Bulletin de la Société Impériale des Naturalistes de Moscou. Moscow.

Bull. Soc. Linn. Norm. Bulletin de la Société Linnéenne de Normandie. Caen.

Bull. Soc. oural. Sci. nat. Bulletin de la Société ouralienne d'Amateurs des Sciences naturelles. Ekaterinburg.

Bull. Soc. portugaise Sci. nat. Bulletin de la Société portugaise des Sciences naturelles. Lisbon.

Bull. Soc. R. malac. Belg. See *Ann. Soc. R. zool. & malac. Belg.*

Bull. Soc. sci. et méd. de l'Ouest, Rennes. Bulletin de la Société scientifique et médicale de l'Ouest. Rennes.

Bull. Soc. Spéléol. Paris. See *Spelunca.*

Bull. Soc. vaud. Sci. nat. Bulletin de la Société vaudoise des Sciences naturelles. Lausanne.

Bull. U.S. Geol. Surv. Bulletin of the United States Geological Survey. Washington. See also *U.S. Geol. Surv.*

Bull. U.S. Nat. Mus. Bulletin of the United States National Museum. Washington (D.C.).

Bull. Univ. Kansas. See *Sci. Bull. Univ. Kansas.*

Bull. Univ. New Mex. Bulletin of the University of New Mexico. Albuquerque (N. Mex.).

Bull. Univ. Oklahoma. See *Oklahoma.*

Bull. Univ. Oregon. Bulletin of the University of Oregon. Eugen (Or.).

Bull. Univ. Wisc. Bulletin of the University of Wisconsin. Madison (Wis.).

Bull. Wash. Geol. Surv. Bulletin of the Washington Geological Survey. Olympia (Wash.).

Bull. Wisc. Geol. & Nat. Hist. Surv. Bulletin of the Wisconsin Geological and Natural History Survey. Madison (Wis.).

Butl. Club Montanyenc. Butlleté del Club Montanyenc. Barcelona.

Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

Canada, Dep. Mines. Canada: Department of Mines. Ottawa.

Centralbl. f. Min. Centralblatt für Mineralogie, Geologie und Paläontologie. Stuttgart.

Chem. News. Chemical News. London.

Coll. Guard. Colliery Guardian. London.

Colo. Coll. Publ. Colorado College Publications. Colorado Springs (Colo.).

Com. Mus. Nac. Buenos Aires. Comunicaciones del Museo Nacional de Buenos Aires. Buenos Aires.

Comm. Commiss. Serv. geol. Portugal. Communicacões da Commissão do Serviço geologico de Portugal. Lisbon.

Comm. geogr. e geol. S. Paulo. Commissão geographica e geologica de São Paulo. São Paulo (Brazil).

Congrès géol. Internat. Congrès géologique International. Stockholm.

C. R. Acad. Sci., Paris. Comptes-rendus hebdomadaires des Séances de l'Académie des Sciences. Paris.

C. R. Assoc. franç. Av. Sci. Comptes-rendus de l'Association française pour l'Avancement des Sciences. Paris.

C. R. Inst. géol. Roumanie. Comptes-Rendus des Séances. Institut géologique de Roumanie. Bucarest.

C. R. Soc. géol. France. Comptes-rendus sommaire des Séances de la Société géologique de France. Paris.

C. R. Soc. helv. Sci. nat. Compte-rendu des Travaux de la Société helvétique des Sciences naturelles. Geneva.

C. R. Soc. Phys. Genève. Comptes-rendu de la Société de Physique de Genève. Geneva.

Dan. geol. Undersög. Danmarks geologiska Undersögelse. Copenhagen.

Denkschr. k. Akad. Wissensch. Wien. Denkschriften der kaiserlichen Akademie der Wissenschaften: Mathematisch-naturwissenschaftliche Classe. Vienna.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

Econ. Geol. Economic Geology. Lancaster (Pa.).

Econ. Proc. R. Dublin Soc. Economic Proceedings of the Royal Dublin Society. Dublin.

Egypt, Surv. Dep. Egypt Survey Department & Geological Survey. Cairo.

Erläut. geogn. Karte Bayern. Erläuterungen zu der geognostischen Karte des Königreichs Bayern. Munich.

Erläut. geol. Karte Baden. Erläuterungen zur geologischen Specialkarte des Grossherzogtums Baden. Heidelberg.

Erläut. geol. Karte Hessen. Erläuterungen zur geologischen Karte des Grossherzogtums Hessen. Darmstadt.

Erläut. geol. Karte Ungar. Erläuterungen zur geologischen Specialkarte der Länder der Ungarischen Krone. Budapest.

Erläut. geol. Karte Würt. Erläuterungen zur geologischen Specialkarte des Königreichs Württemberg. Stuttgart.

Essex Nat. Essex Naturalist, being the Journal of the Essex Field-Club. Stratford.

Expl. géol. Rég. aurif. Sibérie. Explorations géologiques dans les Régions aurifères de la Sibérie. St. Petersburg.

Fennia. Fennia: Bulletin de la Société de Géographie de Finlande. Helsingfors.

Field Columbian Mus. Field Columbian Museum Publications. Chicago (Ill.).

Földt. Közl. Földtani Közlöny. Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Journ. Geographical Journal (Royal Geographical Society). London.

Geol. & Nat. Hist. Surv. Minn. Geological and Natural History Survey of Minnesota. St. Paul (Minn.).

Geol. Fören. Stockh. Förh. Geologiska Föreningens i Stockholm Förhandlingar. Stockholm.

Geol. Mag. Geological Magazine. London.

Geol. Rundsch., Leipzig. Geologische Rundschau: Zeitschrift für allgemeine Geologie. Leipzig.

Geol. Surv. Canada. Contr. Canad. Palæont. Geological Survey of Canada: Contributions to Canadian Palæontology. Ottawa.

Geol. Surv. N. Jersey. Geological Survey of New Jersey. Trenton (N.J.).

Geol. Surv. Queensl., Publ. Geological Survey of Queensland: Publications. Brisbane. See also *Ann. Rep. Dep. Mines, Queensl.*

Geol. u. Paläont. Abh., Jena. Geologische und Paläontologische Abhandlungen. Jena.

Geol. Zentralbl. Geologisches Zentralblatt. Leipzig.

Giorn. Geol. prat. Giornale di Geologia pratica. Catania.

'Glasnik' Soc. Hist. nat. Croatica. Journal of the Natural History Society of Croatia. Agram.

Great Britain & Ireland. Home Office. Mines & Quarries. General Report and Statistics. London.
Hull Mus. Publ. Hull Museum Publications. Hull.
Imp. Coll. Sci., London. Imperial College of Science and Technology. London.
Iowa Geol. Surv. Iowa Geological Survey. Des Moines (Iowa).
Irish Nat. Irish Naturalist. Dublin.
Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Batavia.
Jaarversl. Rijksop. Delfstoff. Amsterdam. Jaarverslag der Rijksopsporing van Delfstoffen. Amsterdam.
Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen. Freiberg.
Jahrb. k.-k. geol. Reichsanst. Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
Jahrb. k.-preuss. geol. Landesanst. Jahrbuch der königlich-preussischen geologischen Landesanstalt. Berlin.
Jahrb. k.-ung. geol. Anst. Jahrbuch der königlich-ungarischen geologischen Anstalt. Budapest.
Jahrb. nassauisch. Ver. f. Naturk. Jahrbücher des nassauischen Vereins für Naturkunde. Wiesbaden.
Jahrb. Schw.-Alpenclub. Jahrbuch des Schweizer-Alpenclubs. Berne.
Jahresb. k.-ung. geol. Anst. Jahresbericht der königlich-ungarischen geologischen Anstalt. Budapest.
Jahresb. naturh. Gesellsch. Hannover. Jahresbericht der naturhistorischen Gesellschaft zu Hannover. Hanover.
Jahresb. naturh. Gesellsch. Nürnberg. Jahresbericht der naturhistorischen Gesellschaft. Nürnberg.
Jahresb. niedersächs. geol. Ver. Jahresbericht des niedersächsischen geologischen Vereins. Hanover.
Jahresb. u. Mitt. Oberrhein. geol. Vereins. Jahresberichte und Mitteilungen des Oberrheinischen geologischen Vereines. Stuttgart.
Jahresb. Ver. Naturw. Braunschweig. Jahresbericht des Vereins für Naturwissenschaft zu Braunschweig. Brunswick.
Jahresh. Ver. Naturk. Württ. Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg. Stuttgart.
Journ. Acad. Nat. Sci. Philad. Journal of the Academy of Natural Sciences, Philadelphia.
Journ. Asiat. Soc. Bengal. Journal and Proceedings of the Asiatic Society of Bengal. Calcutta.
Journ. Bombay Branch R. Asiat. Soc. Journal of the Bombay Branch of the Royal Asiatic Society. Bombay.
Journ. Canad. Mining Inst. Journal of the Canadian Mining Institute. Ottawa.
Journ. Ceylon Branch R. Asiat. Soc. Journal of the Ceylon Branch of the Royal Asiatic Society. Colombo.
Journ. Chem. Soc. Journal of the Chemical Society. London.
Journ. China Branch R. Asiat. Soc. Journal of the China Branch of the Royal Asiatic Society. Shanghai.
Journ. Cincinnati Soc. Nat. Hist. Journal of the Cincinnati Society of Natural History. Cincinnati (Ohio).
Journ. Coll. Sci. Tokyo. Journal of the College of Science, Imperial University. Tokyo.
Journ. Conch., Paris. Journal de Conchyliologie. Paris.
Journ. Geol., Chicago. Journal of Geology. Chicago (Ill.).
Journ. Iron & Steel Inst. Journal of the Iron and Steel Institute. London.
Journ. Linn. Soc. Journal of the Linnean Society. London.
Journ. Northants Nat. Hist. Soc. Journal of the Northamptonshire Natural History Society and Field-Club. Northampton.
Journ. R. Agric. Soc. Journal of the Royal Agricultural Society. London.
Journ. R. Inst. Cornwall. Journal of the Royal Institution of Cornwall. Truro.
Journ. R. Micr. Soc. Journal of the Royal Microscopical Society. London.
Journ. Roy. Soc. N.S.W. Journal and Proceedings of the Royal Society of New South Wales. Sydney.
Journ. Soc. Arts. Journal of the Royal Society of Arts. London.
Journ. Vict. Inst., London. Journal of the Transactions of the Victoria Institute. London.

Journ. Wash. Acad. Sci. Journal of the Washington Academy of Sciences Baltimore (Md.).

Journ. & Proc. Hamilton Sci. Assoc. (*Canada*). Journal and Proceedings of the Hamilton Scientific Association. Hamilton (Canada).

K. danske Vidensk.-Selsk. Afh. Kongelige danske Videnskabernes Selskabs naturvidenskablig og mathematisk Afhandlinger. Copenhagen.

K. danske Vidensk. Selsk. Skrift. Kongelige danske Videnskabernes Selskabs Skrifter. Copenhagen.

K. svenska Vet.-Akad. Årsbok. Kongliga svenska Vetenskaps-Akademiens Årsbok. Stockholm.

K. svenska Vet.-Akad. Handl. Kongliga svenska Vetenskaps-Akademiens Handlingar. Stockholm.

Kansas Univ. Sci. Bull. See *Sci. Bull. Univ. Kansas.*

Kentucky Geol. Surv. Kentucky Geological Survey. Report of Progress. Lexington (Ky.). (See also *Bull. Ky. Geol. Surv.*)

Knowledge. Knowledge. London.

Lond. Edinb. Dubl. Phil. Mag. London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science. London.

Magy. Kir. Földtani Intézet. See *Jahrb. k.-ung. geol. Anst.*

Maryland Geol. Surv. Maryland Geological Survey. Baltimore (Md.).

Matér. Carte géol. Suisse. Matériaux pour la Carte géologique de la Suisse. Commission géologique. Berne.

Mater. Geol. Russ. Materialien zur Geologie Russlands. Herausgegeben von der kaiserlichen mineralogischen Gesellschaft. St. Petersburg.

Meddel. dansk geol. Foren. Meddelelser fra dansk geologisk Forening. Copenhagen.

Meddel. geogr. Fören. Finland. Meddelanden af geografiska Föreningen i Finland. Helsingfors.

Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de Geologiske og Geographiske Undersögelser i Grönland. Copenhagen.

Meddel. Upsala Univ. Min.-geol. Inst. Meddelanden från Upsala Universitetets Mineralogisk-geologiska Institut. Stockholm.

Mededeel. Rijksop. Delfstof. Mededeelingen van de Rijksopsporing van Delfstoffen. Amsterdam.

Mém. Acad. Imp. Sci. St. Pétersb. Mémoires de l'Académie Impériale des Sciences. St. Petersburg.

Mém. Acad. Roy. Belg. Mémoires de l'Académie Royale de Belgique. Brussels.

Mém. Acad. Sci. Dijon. Mémoires de l'Académie des Sciences, Arts et Belles-Lettres de Dijon.

Mém. Acad. Stanislas. Mémoires de l'Académie de Stanislas. Nancy.

Mem. Am. Acad. Arts & Sci. Memoirs of the American Academy of Arts and Sciences. Cambridge (Mass.).

Mem. Am. Mus. Nat. Hist., N.Y. Memoirs of the American Museum of Natural History. New York.

Mem. Asiat. Soc. Bengal. Memoirs of the Asiatic Society of Bengal. Calcutta.

Mem. Carnegie Mus., Pittsb. Memoirs of the Carnegie Museum. Pittsburg (Pa.).

Mem. Carta geol. Ital. Memorie descrittive della Carta geologica d'Italia. (R. Ufficio geologico.) Rome.

Mém. Com. géol. Russie. Mémoires du Comité géologique. St. Petersburg.

Mem. Conn. Acad. Arts & Sci. Memoirs of the Connecticut Academy of Arts and Sciences. New Haven (Conn.).

Mem. Geol. Surv. England & Wales. Memoirs of the Geological Survey of England and Wales. London.

Mem. Geol. Surv. G.B. Memoirs of the Geological Survey of Great Britain. London, &c.

Mem. Geol. Surv. India. Palæont. Indica. Memoirs of the Geological Survey of India: Palæontographica Indica. Calcutta.

Mem. Geol. Surv. Ireland. Memoirs of the Geological Survey of Ireland. Dublin.

Mem. Geol. Surv. N.S.W. Memoirs of the Geological Survey of New South Wales. Sydney.

Mem. Geol. Surv. N.Y. Memoirs of the Geological Survey of the State of New York. State Museum. University of the State of New York. Albany (N.Y.).

Mem. Geol. Surv. Scotland. Memoirs of the Geological Survey of Scotland. Edinburgh.

Mem. Geol. Surv. Transvaal. Memoirs of the Geological Survey of the Transvaal. Pretoria.

Mem. Geol. Surv. Victoria. Memoirs of the Geological Survey of Victoria. Melbourne.

Mem. I. Geol. Surv. Japan. Memoirs of the Imperial Geological Survey of Japan. Tokyo.

Mem. Indian Mus., Calcutta. Memoirs of the Indian Museum. Calcutta.

Mem. Manch. Lit. Phil. Soc. Memoirs and Proceedings of the Manchester Literary and Philosophical Society. Manchester.

Mem. Mus. Comp. Zool. Memoirs of the Museum of Comparative Zoology at Harvard College. Cambridge (Mass.).

Mém. Mus. R. Hist. nat. Belg. Mémoires du Musée Royal d'Histoire naturelle de Belgique. Brussels.

Mem. Mysore Geol. Dep. Memoirs of the Mysore Geological Department. Bangalore.

Mem. Nat. Mus., Melbourne. Memoirs of the National Museum. Melbourne.

Mem. N.Y. Acad. Sci. Memoirs of the New York Academy of Sciences. New York.

Mem. N.Y. State Mus. See *N.Y. State Mus.*

Mem. R. Acad. Cienc., Madrid. Memorias de la Real Academía de Ciencias exactas, físicas y naturales. Madrid.

Mem. R. Acc. Lincei. Memorie della Reale Accademia dei Lincei. Rome.

Mem. R. Acc. Sci. Torino. Memorie della Reale Accademia delle Scienze. Turin.

Mem. R. Astron. Soc. Memoirs of the Royal Astronomical Society. London.

Mem. R. Ist. lomb. Memorie del Reale Istituto lombardo di Scienze e Lettere. Milan.

Mem. R. Soc. S. Austr. Memoirs of the Royal Society of South Australia. Adelaide.

Mém. Soc. belge Géol., Brux. Mémoires de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.

Mem. Soc. cient. 'Ant. Alzate.' Memorias y Revista de la Sociedad científica 'Antonio Alzate.' Mexico.

Mém. Soc. fribourg. Sci. nat., Géol. et Géogr. Mémoires de la Société fribourgeoise des Sciences naturelles. Fribourg.

Mém. Soc. géol. Belg., Liége. Mémoires de la Société géologique de Belgique. Liége.

Mém. Soc. géol. France (Paléont.). Mémoires de la Société géologique de France. Paléontologie. Paris.

Mém. Soc. géol. Nord. Mémoires de la Société géologique du Nord. Lille.

Mém. Soc. Linn. Norm. Mémoires de la Société Linnéenne de Normandie. Caen.

Mém. Soc. Nat. Kiev. Mémoires de la Société des Naturalistes. Kiev.

Mém. Soc. paléont. suisse. Mémoires de la Société paléontologique suisse. Geneva, &c.

Mém. Soc. Phys. & Hist. nat. Genève. Mémoires de la Société de Physique et d'Histoire naturelle de Genève. Geneva.

Mém. Soc. R. malac. Belg. See *Ann. Soc. R. zool. & malac. Belg.*

Mém. Soc. Roy. Sci. Liége. Mémoires de la Société Royale des Sciences. Liége.

Mém. Soc. Spéléol., Paris. See *Spelunca.*

Mem. Univ. Calif. Memoirs of the University of California. Berkeley (Cal.).

Min. Mag. The Mineralogical Magazine, and Journal of the Mineralogical Society. London.

Min. petr. Mitt. Mineralogische und petrographische Mitteilungen. Vienna.

Mines & Minerals, Scranton. Mines and Minerals. Scranton (Pa.).

Mining Journ. Mining Journal. London.

Minutes of Proc. Inst. C.E. Minutes of Proceedings of the Institution of Civil Engineers. London.

Missouri Bur. Geol. & Mines. Missouri Bureau of Geology and Mines. Jefferson City (Mo.).

Mitt. badisch. geol. Landesanst. Mitteilungen der grossherzoglich badischen geologischen Landesanstalt. Heidelberg.

Mitt. Erdbeben-Komm. k. Akad. Wissensch., Wien. Mitteilungen der Erdbeben-Kommission der kaiserlichen Akademie der Wissenschaften, Wien. Vienna.

Mitt. geol. Abtheil. k. würt. Landesamt. Mitteilungen der geologischen Abteilung des königlich württembergischen Landesamtes. Stuttgart.

Mitt. geol. Gesellsch. Wien. Mitteilungen der geologischen Gesellschaft in Wien. Vienna.

Mitt. geol. Landesanst. Elsass-Lothr. Mitteilungen der geologischen Landesanstalt von Elsass-Lothringen. Strasburg.

Mitt. Jahrb. k.-ung. geol. Anst. Mitteilungen aus dem Jahrbuche der königlich-ungarischen geologischen Anstalt. Budapest.

Mitt. Min.-Geol. Samml. Siebenb. Nationalmus. Mitteilungen aus der Mineralogisch-Geologischen Sammlung des Siebenbürgischen Nationalmuseums. Hermannstadt.

Mitt. Min. Inst. Kiel. Mitteilungen aus dem Mineralogischen Institut der Universität Kiel.

Mitt. naturf. Gesellsch., Bern. Mitteilungen der naturforschenden Gesellschaft. Berne.

Mitt. nat. Ver. Steiermark. Mitteilungen des naturwissenschaftlichen Vereins für Steiermark. Graz.

Mitt. staatl. Bohrverw. Niederl. Mitteilungen der staatlichen Bohrverwaltung in den Niederlanden (Rijksopsporing van Delfstoffen). Amsterdam & The Hague. See also *Jaarversl.*

Mitt. Ver. Erdk., Dresden. Mitteilungen des Vereins für Erdkunde. Dresden.

Monatsb. deutsch. geol. Gesellsch. Monatsberichte der deutschen geologischen Gesellschaft. Berlin. See also *Zeitschr.*

Monogr. Palæont. Soc. Monographs of the Palæontographical Society. London.

Monogr. Ray Soc. Monographs of the Ray Society. London.

Monogr. U.S. Geol. Surv. Monographs of the United States Geological Survey. Washington (D.C.).

Monthly Circ. Kent Coal Concess. Monthly Circular, Kent Coal Concessions. London.

Mus. Lundii Afh. E Museo Lundii. Afhandlingar. Copenhagen.

Mysore Geol. Dep. Mysore Geological Department. Bangalore.

Natal Rep. Mining. Report on the Mining Industry of Natal. Pietermaritzburg.

Nat. Sicil. Il Naturalista Siciliano. Palermo.

Naturalist, Hull. The Naturalist. Hull.

Nature. Nature. London.

Naturen, Bergen. Naturen. Bergen.

Nat. Verh. Holland. Maat. Wet. Haarlem. Natuurkundige Verhandelingen van de Hollandsche Maatschappij der Wetenschappen. Haarlem.

Neue Denkschr. schweiz. Gesellsch. Naturw. Neue Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammten Naturwissenschaften. Basel, &c.

N. J. f. Min. Neues Jahrbuch für Mineralogie, Geologie und Paläontologie. Stuttgart.

Norges Geol. Undersök. Norges Geologiske Undersökelse. Christiania.

Norges Landbrukshöiskole. Norges Landbrukshöiskole. Beretning. Christiania.

Norsk geol. Tidsskr. Norsk geologisk Tidsskrift, udgivet af Norsk geologisk Forening. Christiania.

Notice expl. Carte géol. Suisse. Notice explicative de la Carte géologique de la Suisse. Berne.

Notizbl. Ver. f. Erdk. Darmstadt. Notizblatt des Vereins für Erdkunde und der grossherzoglich-hessischen geologischen Landesanstalt. Darmstadt.

Nouv. Arch. Mus. Hist. nat. Paris. Nouvelles Archives du Muséum d'Histoire naturelle. Paris.

Nouv. Mém. Soc. belge Géol. Nouveaux Mémoires de la Société belge de Géologie, de Paléontologie et d'Hydrologie. Brussels.

Nouv. Mém. Soc. Imp. nat. Moscou. Nouveaux Mémoires de la Société Impériale des Naturalistes. Moscow.

Nova Acta Acad. Cæs. Leop.-Car. Nova Acta Academiæ Cæsareæ Leopoldino-Carolinæ Germanicæ Naturæ Curiosorum. Halle. See also *Abh. k. Leop.-Car. deutsch. Akad. Naturf.*

Nova Scotia, Dep. Mines. Nova Scotia Department of Mines. Halifax (N.S.).

N.S.W. Dep. Mines. New South Wales Department of Mines. Sydney.

N.Y. State Mus. New York State Museum. Albany (N.Y.).

Nyt Magazin. Nyt Magazin for Naturvidenskaberne. Christiania.

N.Z. Dep. Mines, Geol. Surv. New Zealand Department of Mines. Geological Survey. Wellington (N.Z.).

Öfvers. K. Vet.-Akad. Förh. Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar. Stockholm.

Oklahoma Univ. Bull. Oklahoma University Research Bulletin. Norman (Okla.).

Ontario, Bur. Mines. See also *Ann. Rep. Bur. Mines, Ont.*

Ottawa Nat. Ottawa Naturalist. Ottawa.

Overs. K. danske Vidensk.-Selsk. Forh. Oversigt over det Kongelige danske Videnskabernes-Selskabs Forhandlinger. Copenhagen.

Paläobot. Lit., Jena. Paläobotanische Literatur. Jena.

Paläont. Abh. Jena. Paläontologische Abhandlungen. Jena.

Palæont. Univ. Palæontologia Universalis. 8vo. Paris.

Palæontographica. Palæontographica. Stuttgart.
Palæont. ital. Palæontographia italica. Pisa.
Papers & Proc. Roy. Soc. Tasm. Papers and Proceedings of the Royal Society of Tasmania. Hobart.
Papers & Rep. Min. & Mining, N.Z. Papers and Reports relating to Minerals and Mining, New Zealand. Wellington (N.Z.).
Parerg. Inst. geol. Mex. Parergones del Instituto geológico de México. Mexico City.
Perak Gov. Gaz. Perak Government Gazette. Taiping.
Peterm. Mitt. Petermanns Mitteilungen. Gotha.
Phil. Trans. Roy. Soc. Philosophical Transactions of the Royal Society. London.
Philippine Journ. Sci. Philippine Journal of Science. (Bureau of Science.) Manila.
Princeton Univ. Rep. Princeton University. Reports of Expeditions. Princeton (N.J.).
Proc. Acad. Nat. Sci. Philad. Proceedings of the Academy of Natural Sciences. Philadelphia (Pa.).
Proc. Agric. Soc. Trinidad & Tobago. Proceedings of the Agricultural Society of Trinidad and Tobago. Trinidad.
Proc. Am. Acad. Arts & Sci. Proceedings of the American Academy of Arts and Sciences. Boston (Mass.).
Proc. Am. Phil. Soc. Proceedings of the American Philosophical Society. Philadelphia (Pa.).
Proc. Asiatic Soc. Bengal. Proceedings of the Asiatic Society of Bengal. Calcutta.
Proc. Austral. Inst. M. E. Proceedings of the Australasian Institute of Mining Engineers. Melbourne (Vict.).
Proc. Bath Nat. Hist. F.-C. Proceedings of the Bath Natural History and Antiquarian Field-Club. Bath.
Proc. Belfast Nat. F.-C. Proceedings of the Belfast Naturalists' Field-Club. Belfast.
Proc. Boston Soc. Nat. Hist. Proceedings of the Boston Society of Natural History. Boston (Mass.).
Proc. Bristol Nat. Soc. Proceedings of the Bristol Naturalists' Society. Bristol.
Proc. Calif. Acad. Sci. Proceedings of the California Academy of Sciences. San Francisco (Cal.).
Proc. Cambridge Phil. Soc. Proceedings of the Cambridge Philosophical Society. Cambridge.
Proc. Canad. Inst. Proceedings of the Canadian Institute. Toronto.
Proc. Chem. Soc. Proceedings of the Chemical Society. London.
Proc. Colo. Sci. Soc. Proceedings of the Colorado Scientific Society. Denver (Colo.).
Proc. Cotteswold Nat. F.-C. Proceedings of the Cotteswold Naturalists' Field-Club. Gloucester.
Proc. Davenport Acad. Nat. Sci. Proceedings of the Davenport Academy of Natural Science. Davenport (Iowa).
Proc. Dorset Nat. Hist. F.-C. Proceedings of the Dorset Natural History and Antiquarian Field-Club. Dorchester.
Proc. Geol. Assoc. Proceedings of the Geologists' Association. London.
Proc. Geol. Soc. S.A. Proceedings of the Geological Society of South Africa. Johannesburg.
Proc. Indiana Acad. Sci. Proceedings of the Indiana Academy of Sciences. Indianapolis (Ind.).
Proc. Linn. Soc. Proceedings of the Linnean Society. London.
Proc. Linn. Soc. N.S.W. Proceedings of the Linnean Society of New South Wales. Sydney.
Proc. Lit. Phil. Soc. Liverp. Proceedings of the Literary and Philosophical Society of Liverpool. Liverpool.
Proc. Liverp. Geol. Soc. Proceedings of the Liverpool Geological Society. Liverpool.
Proc. Malac. Soc. London. Proceedings of the Malacological Society. London.
Proc. Midland Inst. M. E. Proceedings of the Midland Institute of Mining, Civil, and Mechanical Engineers. Newcastle-upon-Tyne.
Proc. N.Z. Inst. Proceedings of the New Zealand Institute. Wellington (N.Z.).
Proc. Prehist. Soc. E. Anglia. Proceedings of the Prehistoric Society of East Anglia. London.
Proc. Rhodesia Sci. Assoc. Proceedings of the Rhodesia Scientific Association. Bulawayo.

Proc. Rochester Acad. Sci. Proceedings of the Rochester Academy of Science. Rochester (N.Y.).

Proc. Roy. Inst. Gt. B. Proceedings of the Royal Institution of Great Britain. London.

Proc. Roy. Irish Acad. Proceedings of the Royal Irish Academy. Dublin.

Proc. Roy. Phys. Soc. Edinb. Proceedings of the Royal Physical Society of Edinburgh. Edinburgh.

Proc. Roy. Soc. Proceedings of the Royal Society. London.

Proc. Roy. Soc. Edinb. Proceedings of the Royal Society of Edinburgh. Edinburgh.

Proc. Roy. Soc. Tasm. Proceedings of the Royal Society of Tasmania. Hobart. See *Papers & Proc.*

Proc. Roy. Soc. Victoria. Proceedings of the Royal Society of Victoria. Melbourne.

Proc. Soc. Bibl. Arch. Proceedings of the Society of Biblical Archæology. London.

Proc. S. Wales Inst. Engin. Proceedings of the South Wales Institute of Engineers. Cardiff.

Proc. U.S. Nat. Mus. Proceedings of the United States National Museum. Washington (D.C.).

Proc. Univ. Durham Phil. Soc. Proceedings of the University of Durham Philosophical Society. Newcastle-upon-Tyne.

Proc.-verb. Soc. R. malac. Belg. Procès-verbaux des Séances de la Société Royale malacologique de Belgique. Brussels.

Proc. Warwick F.-C. Proceedings of the Warwickshire Naturalists' and Archeologists' Field-Club. Warwick.

Proc. Wash. Acad. Sci. Proceedings of the Washington Academy of Sciences. Washington (D.C.).

Proc. Yorks. Geol. Soc. Proceedings of the Yorkshire Geological Society. Halifax.

Proc. Zool. Soc. Proceedings of the Zoological Society. London.

Proc. & Trans. Croydon Nat. Hist. Soc. Proceedings and Transactions of the Croydon Natural History and Scientific Society. Croydon.

Proc. & Trans. N.S. Inst. Sci. Proceedings and Transactions of the Nova Scotia Institute of Science. Halifax (N.S.).

Proc. & Trans. Roy. Soc. Canada. Proceedings and Transactions of the Royal Society of Canada. Ottawa.

Prof. Papers, U.S. Geol. Surv. Professional Papers, United States Geological Survey. Washington (D.C.).

Publ. Carnegie Mus. Publications of the Carnegie Museum. Pittsburg (Pa.).

Publ. Earthq. Comm. Tokyo. Publications of the Earthquake Investigations Committee in Foreign Languages. Tokyo.

Publ. k.-ung. geol. Reichsanst. Publikationen der königlich-ungarischen geologischen Reichsanstalt. Budapest.

Q. J. G. S. Quarterly Journal of the Geological Society. London.

Q. J. R. Met. Soc. Quarterly Journal of the Royal Meteorological Society. London.

Quarry. The Quarry. London.

Queensl., Dep. Mines. Queensland : Department of Mines. Brisbane.

Ray Soc. See *Monographs.*

Rec. Geol. Surv. India. Records of the Geological Survey of India. Calcutta.

Rec. Geol. Surv. N.S.W. Records of the Geological Survey of New South Wales. Sydney.

Rec. Geol. Surv. Victoria. Records of the Geological Survey of Victoria. Melbourne.

Rec. Indian Mus. Records of the Indian Museum. Calcutta.

Rec. London & W. Country Chamber of Mines. Record of the London and West-Country Chamber of Mines. London.

Rec. Mysore Geol. Dep. Records of the Mysore Geological Department. Bangalore.

Rec. W. Austral. Mus. Perth. Records of the Western Australian Museum and Art Gallery. Perth (W. Austral.).

Rendic. e Mem. R. Acc. Sci. Acireale. Rendiconti e Memorie della Reale Accademia di Scienze, Lettere ed Arti. Acireale.

Rendic. R. Acc. Sci. Napoli. Rendiconti della Reale Accademia delle Scienze fisiche e matematiche. Naples.

Rendic. R. Ist. lomb. Reale Istituto lombardo di Scienze e Lettere : Rendiconti. Milan.

Rep. Austral. Assoc. Adv. Sci. Report of the Australasian Association for the Advancement of Science. Sydney (N.S.W.).

Rep. Bristol Mus. & Art Gallery. Report on the Bristol Museum and Art Gallery. Bristol.

Rep. Brit. Assoc. Report of the British Association for the Advancement of Science. London.
Rep. Bur. Mines, Canada. Report of the Bureau of Mines, Canada. Ottawa.
Rep. Dep. Mines, India. Report of the Chief Inspector of Mines in India, Department of Mines. Calcutta.
Rep. Dep. Mines, N.S. Report of the Department of Mines, Nova Scotia. Halifax (N.S.).
Rep. Dep. Mines, Tasm. Report of the Secretary of the Department of Mines. Hobart.
Rep. Dep. Mines, W. Austral. Report of the Department of Mines, Western Australia. Perth (W. Austral.).
Rep. Geol. Surv. Louisiana. Report of the Geological Survey of Louisiana. Bâton Rouge (La.).
Rep. Geol. Surv. Newfoundland. Report of the Geological Survey of Newfoundland. St. John's (N.F.).
Rep. Inst. Mines & Forests, Brit. Guiana. Report of the Council of the Institute of Mines and Forests on the Gold and Forest-Industries of British Guiana. Georgetown (Demerara).
Rep. Leicester Mus. Report of the Committee to the Town Council, Leicester Corporation Museum and Art Gallery. Leicester.
Rep. Mich. Acad. Sci. Report of the Michigan Academy of Science. Lansing (Mich.).
Rep. Rhodesia Chamb. Mines. Report of the Rhodesia Chamber of Mines. Bulawayo.
Rep. Rugby School Nat. Hist. Soc. Report of the Rugby School Natural History Society. Rugby.
Rep. S. Afr. Mus. Report of the South African Museum. Cape Town.
Rep. S.E. Union Sci. Soc. See *Trans. S.E. Union Sci. Soc.*
Rep. Surv. Dep. Egypt. Report on the Work of the Survey Department. Cairo.
Rep. U.S. Dep. Agric. Report of the United States Department of Agriculture. Washington (D.C.).
Rep. U.S. Nat. Mus. Report of the United States National Museum. Washington (D.C.).
Rep. Univ. Geol. Surv. Kansas. Reports of the University Geological Survey of Kansas. Topeka (Kan.). See also *Ann. Bull. Min. Resources, Kansas.*
Rep. & Proc. Belfast Nat. Hist. Soc. Report and Proceedings of the Belfast Natural History and Philosophical Society. Belfast.
Rep. & Trans. Devon. Assoc. Adv. Sci. See *Trans. Devon. Assoc.*
Rev. Cienc., Lima. Revista de Ciencias. Lima.
Rev. critique de Paléozool. Revue critique de Paléozoologie. Paris.
Rev. Mus. La Plata. Revista del Museo de la Plata. La Plata.
Rev. R. Acad. Cienc. Madrid. Revista de la Real Academía de Ciencias exactas físicas y naturales. Madrid.
Rev. Sci., Paris. Revue Scientifique. Paris.
Rev. Soc. sci. São Paulo. Revista da Sociedade scientifica de São Paulo. São Paulo
Rhodesia Mus. Rhodesia Museum. Bulawayo.
Riv. ital. Paleont. Rivista italiana di Paleontologia. Catania.
Riv. Min. e Crist. ital., Padova. Rivista di Mineralogia e Cristallografia italiana Padua.
Rochester Nat. Rochester Naturalist. Rochester.
Rozpr. Akad. Umiej. Krakow. Rozprawy Wydzialu matematyczno-przyrodniczego Akademii Umiejetnošci. Cracow.
S. Afr. Journ. Sci. South African Journal of Science, being the organ of the South African Association for the Advancement of Science. Cape Town.
Samml. geol. R.-Mus. Leiden. Sammlungen des geologischen Reichs-Museums in Leiden. Leyden.
Sarawak Mus. Journ. Sarawak Museum Journal. Singapore.
Schr. Gesellsch. Naturw. Marburg. Schriften der Gesellschaft zur Beförderung der gesammten Naturwissenschaften zu Marburg. Marburg.
Schr. Naturf.-Gesellsch. Univ. Dorpat. Schriften herausgegeben von der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.
Schr. physik.-ökonom. Gesellsch. Königsb. Schriften der physikalisch-ökonomischen Gesellschaft. Königsberg in Pr.
Sci. Bull. Univ. Kansas. Science Bulletin of the University of Kansas. Lawrence (Kan.).
Sci. Proc. R. Dublin Soc. Scientific Proceedings of the Royal Dublin Society. Dublin.

Sci. Trans. R. Dublin Soc. Scientific Transactions of the Royal Dublin Society. Dublin.

Science. Science. New York.

Scot. Geogr. Mag. Scottish Geographical Magazine. (Royal Scottish Geographical Society.) Edinburgh.

Sitz. Gesellsch. naturf. Freunde, Berlin. Sitzungsberichte der Gesellschaft naturforschender Freunde. Berlin.

Sitz. k. Akad. Wissensch., Wien. Sitzungsberichte der kaiserlichen Akademie der Wissenschaften. Vienna.

Sitz. k.-bayr. Akad. Sitzungsberichte der mathematisch-physikalischen Classe der königlich-bayerischen Akademie der Wissenschaften. Munich.

Sitz. k.-preuss. Akad. Wissensch., Berlin. Sitzungsberichte der königlich preussischen Akademie der Wissenschaften. Berlin.

Sitz. Naturf.-Gesellsch. Dorpat. Sitzungsberichte der Naturforscher-Gesellschaft bei der Universität Jurjew. Dorpat.

Sitz. naturh. Ver. preuss. Rheinl. Sitzungsberichte herausgegeben vom naturhistorischen Verein der preussischen Rheinlande und Westfalens. Bonn.

Sitz. niederrhein. Gesellsch. Nat. &c., Bonn. Sitzungsberichte der niederrheinischen Gesellschaft für Natur- und Heilkunde zu Bonn. Bonn. See *Verh. naturh. Ver. preuss. Rheinl.*

Sitz. u. Abh. Gesellsch. 'Isis.' Sitzungsberichte und Abhandlungen der naturwissenschaftlichen Gesellschaft 'Isis' in Dresden. Dresden.

Smiths. Contrib. Knowledge. Smithsonian Contributions to Knowledge. Washington (D.C.).

Smiths. Miscell. Coll. Smithsonian Miscellaneous Collections. Washington (D.C.).

South Australia, Dep. of Mines. South Australia, Department of Mines. Adelaide.

Spelunca. 'Spelunca.' Bulletin et Mémoires de la Société de Spéléologie. Paris.

Summ. Progr. Geol. Surv. G.B. Summary of Progress of the Geological Survey of Great Britain. London.

Summ. Rep. Geol. Surv. Canada. Summary Report of the Geological Survey of Canada. Ottawa.

Sver. geol. Undersökn., Afh. Sveriges geologiska Undersökning, Afhandlingar. Stockholm.

Sver. geol. Undersökn., Årsb. Sveriges geologiska Undersökning, Årsbok. Stockholm.

Tasm. Dep. Mines. Tasmania. Department of Mines. Hobart.

Trans. Acad. Sci. St. Louis. Transactions of the Academy of Science. St. Louis (Mo.).

Trans. Am. Inst. M. E. Transactions of the American Institute of Mining Engineers. New York.

Trans. Am. Phil. Soc. Transactions of the American Philosophical Society. Philadelphia (Pa.).

Trans. Inst. Water Eng. Transactions of the Institution of Water Engineers. London.

Trans. Austr. Inst. M. E. Transactions of the Australasian Institute of Mining Engineers. Melbourne & Sydney.

Trans. Cambridge Phil. Soc. Transactions of the Cambridge Philosophical Society. Cambridge.

Trans. Canad. Inst. Transactions of the Canadian Institute. Toronto.

Trans. Connect. Acad. Transactions of the Connecticut Academy of Arts and Sciences. New Haven (Conn.).

Trans. Croydon Nat. Hist. Soc. See *Proc. & Trans. Croydon Nat. Hist. Soc.*

Trans. Devon Assoc. Transactions of the Devonshire Association for the Advancement of Science. Plymouth.

Trans. Edinb. Geol. Soc. Transactions of the Edinburgh Geological Society. Edinburgh.

Trans. Geol. Soc. Glasgow. Transactions of the Geological Society of Glasgow. Glasgow.

Trans. Geol. Soc. S. Afr. Transactions of the Geological Society of South Africa. Johannesburg.

Trans. Herts Nat. Hist. Soc. Transactions of the Hertfordshire Natural History Society and Field-Club. Hertford.

Trans. Hist. & Sci. Soc. Manitoba. Transactions of the Historical and Scientific Society of Manitoba. Winnipeg.

Trans. Hull Geol. Soc. Transactions of the Hull Geological Society. Hull.

Trans. Hull Sci. & F.-Nat. Club. Transactions of the Hull Scientific and Field-Naturalists' Club. Hull.
Trans. Inst. M. E. Transactions of the Institution of Mining Engineers. Newcastle-upon-Tyne.
Trans. Inst. Mining & Metall. Transactions of the Institution of Mining and Metallurgy. London.
Trans. Leeds Geol. Assoc. Transactions of the Leeds Geological Association. Leeds.
Trans. Leicester Lit. & Phil. Soc. Transactions of the Leicester Literary and Philosophical Society. Leicester.
Trans. Linn. Soc. Transactions of the Linnean Society. London.
Trans. Manch. Geol. Soc. Transactions of the Manchester Geological and Mining Society. Manchester.
Trans. N. Engl. Inst. Min. & Mech. Eng. Transactions of the North of England Institute of Mining and Mechanical Engineers. Newcastle-upon-Tyne.
Trans. N.Z. Inst. Transactions and Proceedings of the New Zealand Institute. Wellington (N.Z.).
Trans. N.Z. Inst. M. E. Transactions of the New Zealand Institute of Mining Engineers. Auckland (N.Z.).
Trans. Perth Soc. Nat. Sci. Transactions and Proceedings of the Perthshire Society of Natural Science. Perth.
Trans. R. Geol. Soc. Cornwall. Transactions of the Royal Geological Society of Cornwall. Penzance.
Trans. Roy. Irish Acad. Transactions of the Royal Irish Academy. Dublin.
Trans. Roy. Soc. Canada. See *Proc. & Trans. Roy. Soc. Canada.*
Trans. Roy. Soc. Edinb. Transactions of the Royal Society of Edinburgh. Edinburgh.
Trans. Roy. Soc. N.S.W. Transactions of the Royal Society of New South Wales. Sydney.
Trans. Roy. Soc. S. Afr. Transactions of the Royal Society of South Africa. Cape Town.
Trans. Roy. Soc. S. Austral. Transactions of the Royal Society of South Australia. Adelaide.
Trans. Roy. Soc. Vict. Transactions of the Royal Society of Victoria. Melbourne.
Trans. S. Afr. Phil. Soc. Transactions of the South African Philosophical Society. Cape Town.
Trans. S.E. Union Sci. Soc. Transactions of the South-Eastern Union of Scientific Societies. London.
Trans. Wisconsin Acad. Sci. Transactions of the Wisconsin Academy of Science, Arts, and Letters. Madison (Wis.).
Trans. Woolhope Nat. F.-C. Transactions of the Woolhope Naturalists' Field-Club. Hereford.
Trans. Worcester Nat. Club. Transactions of the Worcestershire Naturalists' Club. Worcester.
Trans. Zool. Soc. Lond. Transactions of the Zoological Society. London.
Transvaal Mines Dep., Rep. Geol. Surv. Transvaal Mines Department. Report of the Geological Survey. Pretoria.
Trav. Mus. géol. Pierre le Grand. Travaux du Musée géologique Pierre le Grand. St. Petersburg.
Trav. Sec. géol. Cab. Sa M., St. Pétersb. Travaux de la Section géologique du Cabinet de Sa Majesté. St. Petersburg.
Tufts Coll. Studies. Tufts College Studies. Tufts College (Mass.).
U.S. Geol. Surv. United States Geological Survey. Washington (D.C.).
Union of South Africa, Dep. Mines. See *Ann. Rep. S. Afr. Mines Dep.*
Uppsala Univ. Årsskrift. Uppsala Universitetets Årsskrift. Upsala.
Verh. deutsch. wissensch. Ver. Santiago. Verhandlungen des deutschen wissenschaftlichen Vereins zu Santiago de Chile. Valparaiso.
Verh. k.-k. geol. Reichsanst. Verhandlungen der kaiserlich-königlichen geologischen Reichsanstalt. Vienna.
Verh. k.-k. zool.-bot. Gesellsch. Wien. Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien. Vienna.
Verh. naturf. Gesellsch. Basel. Verhandlungen der naturforschenden Gesellschaft. Basel.
Verh. naturf. Ver. preuss. Rheinl. Verhandlungen des naturhistorischen Vereins der preussischen Rheinlande, Westfalens und des Regierungs-Bezirks Osnabrück Bonn.

Verh. russ.-k. min. Gesellsch. Verhandlungen der russisch-kaiserlichen mineralogischen Gesellschaft. St. Petersburg.
Verh. schweiz. naturf. Gesellsch. Verhandlungen der schweizerischen naturforschenden Gesellschaft. Berne, &c. See also *Actes Soc. helv. Sci.*
Verh. siebenbürg. Ver. Naturw. Verhandlungen und Mittheilungen des siebenbürgischen Vereins für Naturwissenschaften. Hermannstadt.
Veröffentl. Inst. Meeresk. Berlin. Veröffentlichungen des Instituts für Meereskunde und des geographischen Instituts an der Universität. Berlin.
Victoria, Dep. Mines. Victoria: Department of Mines. Melbourne.
Victorian Nat., Melbourne. Victorian Naturalist. Melbourne.
Vidensk. Meddel. naturh. Foren. Kjöbenhavn. Videnskabelige Meddelelser fra den naturhistoriske Forening i Kjöbenhavn. Copenhagen.
Water. Water. London.
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Zeitschr. f. Berg-, Hütt.- u. Salinenw. Zeitschrift für das Berg-, Hütten- und Salinenwesen im preussischen Staate. Berlin.
Zeitschr. f. Gletscherk. Berlin. Zeitschrift für Gletscherkunde. Berlin.
Zeitschr. f. Kryst. Zeitschrift für Krystallographie und Mineralogie. Leipzig.
Zeitschr. f. Naturw. Halle. Zeitschrift für Naturwissenschaften. Organ des naturwissenschaftlichen Vereins für Sachsen und Thüringen zu Halle a. S. Leipzig.
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—— 4. Exkursion nach Krems an der Donau. *Verh. k.-k. zool.-bot. Gesellsch. Wien*, lxii. pp. (55)–(56). 1912.

—— 5. Ueber die verschiedenen Ursachen des gehäuften Vorkommens von Tierleichen in Gesteinen. *Verh. k.-k. zool.-bot. Gesellsch. Wien*, lxii. pp. (57)–(61). 1912.

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—— 7. Ueber eine im Erdwachs von Starunia in Galizien gefundene Nashornleiche. *Verh. k.-k. zool.-bot. Gesellsch. Wien*, lxii. pp. (79)–(82), fig. 1912.

—— 8. Verbreitung und Lebensweise der Ammoniten. *Verh. k.-k. zool.-bot. Gesellsch. Wien*, lxii. pp. (82)–(85). 1912.

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—— (—), deserts.—Macdougal, D. T.

—— (—), geological history of.—Willis, B., 3.

—— (—), palæogeography.—Jukes-Browne, A. J., 3.

—— (—), Permian Reptilia of S. Africa and.—Broom, R.

—— (—), Pleistocene faunas.—Hay, O. P.

—— (—), submarine valleys off coast of.—Spencer, J. W. W.

—— (—), Triassic coral-reefs.—Smith, J. P., 2.

—— (Pacific margin).—Dacqué, E.

—— (South).—Sefve, I.

—— (—), palæogeography of.—Haseman, J. D.

—— (Western North), land vertebrates.—Schaffer, F. X., 4.

Amherst (Victoria).—Howitt, A. M., 7.

Amiata, Monte (Tuscany).—Nasini, R., 3.

Amiens (Somme).—Gosselet, J. A. A., 2.

Amiskwia.—Steinmann, J. H. C. G. G., 6.

Ammodiscus.—Noth, R.

Ammonites, distribution & mode of life of.—Abel, O., 8; Diener, C.

——, relations between suture-lines & septa of.—Pfaff, E.

——. *See also* Cephalopoda, *Arietites, &c.*

Ammonitoceras.—Kilian, C. C. W., 6.

Ammonoids, phylogeny of Triassic.—Arthaber, G. von.

Ampangabéite.—Lacroix, A. F. A., 9 & 26.

Amphibanus.—Moodie, R. L.

Amphibia, Carboniferous.—Moodie, R. L., 1 & 6.

——, Jurassic.—Moodie, R. L., 7.

——, Palæozoic.—Case, E. C., 4.

——, Permian.—Case, E. C.; Moodie, R. L., 2.

Amphibole-rocks, Bohemia.—Krehan A.

Amphibolite. — Leitmeier, H.; Ohnesorge, T.
——, Kamp Valley.—Grengg, R.
——, New Zealand.—Wild, L. J.
——, Samos I.—Butz, J.
——, Sardinia.—Lovisato, D., 4.
——, Thuringia.—Lange, T.
——, origin of.—Wild, L. J.
Amphiope.—Lovisato, D.
Amphiperas.—Cerulli-Irelli, S., 2.
Amphistegina.—Vadász, E. M., 2.
Ampullina.—Bœse, E., 2.
Ampyx.—Chapman, F.
Amur Peninsula (E. Siberia).—Krishtofovich, A. N.
Amur Prov. (Siberia).—Novopokrovskiĭ, I.; Seward, A. C., 3; Zaitzev, A. M., 2.
Amussium.—Bœse, E.; Canavari, I.; Toula, F.
Amycla.—Cerulli-Irelli, S., 2.
Amygdalus.—Engelhardt, H.
Analcite.—Foote, H. W.
—— -syenite, Ayrshire.—Tyrrell, G. W.
Analalava (Madagascar).—Lemoine, P.
Analyses, alkaline igneous rocks.—Tyrrell, G. W.
——, amphibolite.—Wild, L. J.
——, analcite.—Foote, H. W.
——, Anglesey crystalline rocks. — Greenly, E., 3.
——, apatite.—Rogers, A. F., 3.
——, augite.—Gonnard, F., 2.
——, basalt.—Bartrum, J. A.
——, bastnæsite. — Lacroix, A. F. A., 22.
——, bauxite.—Cole, G. A. J., 4.
——, beaverite.—Schaller, W. T., 21.
——, betafite.—Lacroix, A. F. A., 9.
——, black earths.—Gin, G.
——, blomstrandite.—Lacroix, A. F. A., 9.
——, calc-silicate rocks. — Kretschmer, F.
——, Carboniferous Limestone.—Chapman, M. B.
——, carnotite.—Wherry, E. T., 4.
——, clays.—Sargent, H. C., 2.
——, coal.—Horváth, B. von.
——, crystallochemical.—Barker, T. V., 3.
——, dacite.—Rack, G.
——, dahllite.—Rogers, A. F., 3.
——, gas in rocks.—Pamfil, G. P.
——. glaucophane-rocks.—Woyno, T. J.
——, granite, Rumania.—Cadere, D. M.
——, granodiorite.—Truninger, E.
——, haüynite.—Parravano, N.
——, hornblende.—Gonnard, F., 2.
——, interbasaltic rocks and iron-ores. —Cole, G. A. J., 4.
——, kragerite.—Watson, T. L., 2.
——, laterites.—Simpson, E. S.
——, lime-bostonite.—Gardiner, C. I., 2.
——, metamorphosed Secondary rocks.—Longchambon, M.
Analyses, meteorites.—Couyat, J.; Farrington, O. C., 2; Meunier, E. S.
——, meteoritic olivine.—Timofeev, K. I., 2.
——, mineral waters.—Emszt, K., 2.
——, minette.—Blum, L., 2.
——, nepheline-gneiss.—Lacroix, A. F. A., 15.
——. nepheline-syenite.—Lacroix, A. F. A., 16.
——, nephelinite.—Marshall, P., 2.
——, nephelite.—Bowen, N. L.; Foote, H. W., 2; Schaller, W. T., 3.
——, norite.—Wild, L. J.
——, Norwegian rocks. — Kolderup, C. F., 6.
——, oolites.—Ziegler, V.
——, petroleum.—Dimitriu, V.
——, phonolite.—Bartrum, J. A.
——, phosphate-rock. — Rogers, A. F., 3.
——, phosphorite & plumbojarosite.—Schaller, W. T., 21.
——, porphyry.—Wild, L. J.
——, potash-rhyolite.—Kôzu, S.
——, pyrite.—Dimitriu, V.
——, Patagonian rocks.—Quensel, P. D.
——, quartz-syenite.—Kôzu, S., 2.
——, rhyolite.—Lake, P.
——, rutile group. — Schaller, W. T., 21.
——, samiresite.—Lacroix, A. F. A., 9.
——, sapphirine.—Warren, C. H.
——, Scottish oil-shales. — Carruthers, R. G.
——, sheridanite.—Wolff, J. E.
——, soda-rhyolite. — Zygmuntowska, W.
——, soils.—Vinassa de Regny, P., 9; Woodward, H. B.
——, spilite.—Gardiner, C. I., 2.
——, Spitsbergen coal.—Patterson, W. H.
——, steatite.—Kernthaler, A.
——, tables for the calculation of.—Harker, A.
——, thermal waters. — Chuard, E.; Masson, I.
——, trachydolerite.—Bartrum, J. A.
——, turquoise.—Schaller, W. T.
——, uralite.—Wild, L. J.
——, volcanic lavas.—Lacroix, A. F. A., 4; Ponte, G.
——, volcanic rocks.—Bœse, W.
——, Victorian rocks.—Skeats, E. W.
——, well-waters.—Thresh, J. C.
——, West African syenites.—Lacroix, A. F. A., 2.
Analysis, mineral composition & chemical.—Mead, W. J.
Anaphragma.—Bassler, R. S.
Anatase.—Desbuissons, L.; Friedel, G., 3; Smith, G. F. H.
Anatolian Goldfield.—Dominian, L.
Anatomites.—Burckhardt, C., 2.
Ancaster ‘Gap’ (Lincoln). — Burton, F. M.

Ancillaria.—Weaver, C. E., 2.
Ancyloceras.—Krenkel, E.; Stolley, E., 2.
Ancylus.—Halaváts, G. von.
—— upheaval, W. German coast.—Gagel, C.
Andalusite.—Klemm, G., 3,
Andeer (Grisons).—Meyer, H. L. F.
ANDERSSON, D. F., *Obit.*—*See* Munthe, H., 2.
Andes (S. Am.).—Stappenbeck, R.; Steffen, H., 1 & 2; Steinmann, J. H. C. G. G.; Sundt, L.
Andesite, Argentina.—Stieglitz, O.
——, Avas Mts.—Glinka, K. D.
——, Caucasus.—Schafarzik, F.
——, Dutch East Indies.—Rack, G.
——, Gömör.—Junghann, H.
——, Pacific province.—Starzynski, Z.
——, Patagonia.—Quensel, P. D.
——, Rumania.—Butureanu, W. C.
——, St. Thomas I.—Bœse, W.
Andræa.—Schrammen, A.
Andreasberg (Vienna).—Kolbeck, F.
Androgynoceras.—Buckman, S. S.
Andromeda.—Engelhardt, H.; Krishtofovich, A. N., 4.
Angara R. (Irkutsk.).—Pankov, A.
Angiosperms, earliest European.—Stopes, M. C. C., 4.
Anglesey.—Greenly, E., 1 & 3.
Anglesite.—Cesàro, G., 2, 3 & 5; Duerrfeld, V., 2; Tacconi, E., 2.
Angola (W. Africa).—Freire de Andrade, A. A.
Anguinella.—Bœse, E.
Anhalt (Germany).—Ziervogel, H.
Anhydrite.—Burkhardt, W.; Jones, J. C.; Rogers, A. F.
Aniche (Nord).—Barrois, C., 3; Broussier, F.
Animasaurus.—Case, E. C., 5.
Anjou (France).—Bellanger, E., 1 & 2.
Ankaratra Massif (Madagascar).—Lacroix, A. F. A., 6.
Ankerite.—Crook, T., 3.
Ankyropteris.—Frič, A.
Annalepis.—Fliche, P.
Annam.—Deprat, J., 1, 3, & 4.
Annapolis Co. (N. S.).—Fréchette, H.
Annelida, Cretaceous.—Grœnwall, K. A.; Leriche, M., 3; Stolley, E., 3.
——, Devonian.—Chapman, F., 8; Kindle, E. M., 4.
——, Eocene.—Oppenheim, P.
——, Palæozoic.—Delgado, J. F. N.
——, Rhætic.—Horwood, A. R., 2.
——, trails of Cambrian.—Walcott, C. D., 4.
—— ——, Silurian.—Hundt, R.
Annularia.—Vernon, R. D.; Vinassa de Regny, P., 8.
Annerödite.—Chernik, G. P.
Anœctomeria.—Engelhardt, H.
Anolcites.—Salopek, M.
Anolotrichia.—Bassler, R. S.
Anomalina.—Canavari, I.
Anomalocaris.—Walcott, C. D.
Anomaloxylon.—Gothan, W.
Anomia.—Bœse, E., 1 & 2; Nordmann, V.; Schlagintweit, O.
Anomorphites.—Kolb, R.
Anomopteris.—Fliche, P.
Anoplia & *Anoplotheca.*—Kindle, E. M., 4.
Anorthite.—Bowen, N. L., 2.
Anorthopygus.—Hawkins, H. L., 1 & 6.
Anorthosite-gneiss, Norway.—Kœnigsberger, J., 5.
Antarctic explorations, bibliography of.—Hulth, J. M.
Antelao Mt. (Venetian Alps).—Dal Piaz, G.
Antelope Valley (California).—Johnson, H. R.
Anthozoa, Carboniferous.—Lang, W. D., 2; Richthofen, F. von; Smith, J.; Vaughan, A.
——, Cretaceous.—Papp, K. von.
——, Devonian.—Chapman, F., 7 & 8; Grosch, P., 2; Kindle, E. M., 4; Richthofen, F. von; Vinassa de Regny, P.
——, Eocene.—Filliozat, M., 4; Oppenheim, P.
——, Jurassic.—Clapp, C. H., 3; Papp, K. von.
——, Oligocene.—Andrée, K., 5.
——, Silurian.—Lee, G. W., 2; Walkom, A. B.
——, Tertiary.—Canavari, I.; Chapman, F., 5: Filliozat, M., 2; Toula, F., 2.
——, Triassic.—Papp, K. von, 2; Tommasi, A.; Vinassa de Regny, P., 3 & 4.
Anthracite, Belgium.—Anthoine, R., 3.
Anthracomartus.—Pocock, R. I.
Anthracomya.—Hind, W., 2; Vernon, R. D.
Anthraconeilo.—Girty, G. H.
Anthracoscorpio & *Anthracosiro.*—Pocock, R. I.
Anthracotherium.—Kinkelin, F.
Anthrapalæmon.—Vernon, R. D.
Antigua (W.I.).—Guppy, R. J. L., 4.
Antilles.—Scharff, R. F.
Antilope.—Kiernik, E.
Antimony, N.S.W.—Carne, J. E., 2.
Antiptychina.—Haas, O.
Antrim (Ireland).—Arber, E. A. N., 9; Cole, G. A. J., 4.
Antwerp (Belgium).—Fourmarier, P.
Aosta Valley (Piedmont).—Catani, R.
Apateodus.—Woodward, A. S., 4.
Apatite.—Duerrfeld, V., 2; Nacken, R.; Rogers, A. F., 3; Vialay, A.; Schaller, W. T., 21.
—— dikes, Norrbotten.—Geijer, P., 2.
Apennines, Italy.—Ferrari, M.; Parona, C. F., 4; Tilmann, N.
Aphantomartus.—Pocock, R. I.
Apheleceras.—Hind, W.
Aphlebia.—Bertrand, P., 2; Thomas, H. Hamshaw.

Aphrocallistes.—Ravn, J. P. J.; Schrammen, A.
Aplite. Colombia.—Lehmann, E.
——, Delos.—Cayeux, L., 2.
——, Gesteren.—Truninger, E.
——, Passau.—Frentzel, A.
Apocopodon.—Woodward, A. S., 4.
Apocynophyllum.—Engelhardt, H.
Apophyllite.—Jahn, A.
Apparatus, blowpipe.—Suida, G.
——, crystallographic.—Wulff, G., 2.
——, microscopic.—Wulff, G.
Applanation.—Cairnes, D. D., 2.
Apternodus.—Matthew, W. D.
Aptian, Drôme.—Kilian, C. C. W., 11.
Apulia (Italy).—Bassani, F.; Misuri, A.
Aquamarine. *See* Beryl.
Aquila.—Fabiani, R., 4.
Aquitaine (France).—Cossmann, M., 2; Randoin, A.; Repelin, J., 2.
Aquitanian, Lot-et-Garonne.—Vasseur, G., 2.
——, limits of stage.—Repelin, J.
Arabia.—Couyat, J.; Stefano, Giov. di, 2.
Arachnida, Carboniferous.—Pocock, R. I.; *see also* Merostomata, &c.
Aradhegyalja Mts. (Hungary).—Treitz, P., 3.
Aræoscelis.—Huene, F. von, 5.
Aragon (Spain).—Carez, L., 3; Lambert, J.
Aragonite.—Balogh, E.
—— coating pebbles.—Lane, A. C., 2.
Arakan Coast (Burma).—Brown, J. C., 2.
Aralia.—Fritel, P. H.; Johnson, D. W.
Araliophyllum.—Engelhardt, H.
Arallæphyllum.—Berry, E. W.
Arany Mts. (Hungary).—Zimányi, K., 2.
Araucarinæ, Triassic.—Jeffrey, E. C.
Araucarioxylon.—Fliche, P.; Wherry, E. T., 2.
Araucarites.—Berry, E. W.; Frič, A.
Araxes Gorge (Transcaucasia).—Bonnet, P.
Arbacia.—Jackson, R. T.
Arbas (French Pyrenees).—Bertrand, L., 5.
Arbroath (Forfar).—Evans, J. W., 5; Hickling, G.
Arca.—Bœse, A.; Johnson, D. W.; Steinmann, J. H. C. G. G., 7; Tommasi, A.; Toula, F., 1 & 2.
Archæan, Lake Superior Region.—Van Hise, C. R.
——, Lewis I.—Peach, B. N., 3.
——, Norway.—Kolderup, C. F., 6.
——, Ontario.—Lawson, A. C., 2.
——, Russia.—Sederholm, J. J., 7.
——, Transvaal.—Molengraaff, G. A. F.
Archæanthropus.—Romero, A. A.
Archæocidaris.—Jackson, R. T.
Archæoctonus.—Pocock, R. I.
Archæocyathinæ.—Walcott, C. D., 6.
Archæometa.—Pocock, R. I.
Archæopora.—Bassler, R. S.
Archæoptilus.—Meunier, F., 3.
Archæozonites.—Jooss, C. H., 2.
Archarenicola.—Horwood, A. R., 2.
Arcomya.—Tommasi, A.
Arctic Bed, Middlesex.—Warren, S. H.
—— Regions.—Backlund, H.; Drygalski, E. von; Hulth, J. M.; Lee, G. W., 2.
—— Sea during Palæozoic time.—Meyer, O. E.
Arctomys.—Fabiani, R., 4.
Arctostrea.—Douvillé, H.
Arctotherium.—Merriam, J. C.
Arcularia.—Cerulli-Irelli, S., 2.
Arden Sandstone, Warwickshire.—Matley, C. A.
Ardennes.—Dorlodot, H. de, 4; Fourmarier, P., 3 & 5; Leriche, M., 4; Malaise, C. H. G. L., 2 & 3.
Ardes (Puy-de-Dôme).—Glangeaud, P., 3.
Ardisia.—Engelhardt, H.
Arenicolites.—Hundt, R.
Arenig, Mayo.—Gardiner, C. I., 2.
Argentario, Monte (Tuscany).—Lotti, B.
Argentera Group (Piedmont).—Sacco, F.
Argentina (S. Am.).—Ameghino, F.; Bertrand y Cavaller, F.; Cardosa, A.; Carlés, E. de, 1–3; Douvillé, R.; Longobardi, E.; Loos, P. A.; Romero, A. A.; Rovereto, G., 1–3; Rudolph, E.; Scharff, R. F.; Stappenbeck, R.; Stieglitz, O.; Ugolini, R., 3; Yung, G.
Arghana (Asia Minor).—Coulant, E.
Argovian, Switzerland.—Delhæs, W., 2.
Argyll (Scotland).—Bailey, E. B., 4; Galloway, T. L.; Peach, B. N., 5.
Ariège (France).—Canal, J., 1 & 2; MacCurdy, G. G.; Massol, G.; Mengaud, M.
Arieticeras.—Rassmuss, H., 3.
Arietites.—Buckman, S. S.
Arionellus.—Steinmann, J. H. C. G. G., 7.
Arisaig-Antigonish district (N.S.).—Williams, M. Y.
Aristolochia.—Kafka, J.
Aristolochiæphyllum.—Berry, E. W.
Arizona (U.S.A.).—Darton, N. H.; Foote, W. M.; Hayes, C. W., 2; Martel, E. A., 2; Stewart, C. A.
Arkansas.—Glenn, L. C.; Purdue, A. H., 2.
Arkose.—Sander, B., 3.
Arlesey (Beds.).—Hill, W.
Arlon (Luxemburg).—Jérome, A., 1 & 4.
Armenia.—Oswald, F.; Tanatar, J.
Armes (Drôme).—Kilian, C. C. W., 11.
Armiger.—Kormos, T., 6 & 8.
Arnside district (Westmorland).—Garwood, E. J.

Arnswalde (Brandenburg).—Klautzsch, A.
Arolla Glacier (Valais).—Mercanton, P. L.
Aroroy district (Masbate I.).—Ferguson, H. G.
Arras (Pas-de-Calais).—Gosselet, J. A. A., 4.
Arsenoferrite.—Baumhauer, H., 3.
Artanthe.—Engelhardt, H.
Artesian water.—Delecourt, J., *fil.*
—— ——, Bohemia.—Hibsch, J. E.
—— wells, Hungary.—Lóczy, L. von, 3.
—— ——, Indiana.—Capps, S. R., 2.
—— ——, Moscow.—Vinogradov, A.
—— ——, New Zealand.—Hilgendorf, F. W.
Arthroclema, Arthropora, & Arthrostylus.—Bassler, R. S.
Arthrodira, Devonian.—Hussakov, L.
Arthrolycosa.—Pocock, R. I.
Arthropleura.—Vernon, R. D.
Arthropoda. *See* Trilobita, Arachnida, *&c.*
Arthrotaxopsis.—Berry, E. W., 1 & 4.
Arthur's Seat (Edinburgh).—Day, T. C.
Artiodactyla.—Matthew, W. D.; Peterson, O. A.
Artisia.—Fliche, P.
Artocarpidium.—Engelhardt, H.
Artois (France).—Gosselet, J. A. A., 1 & 4.
Arundel formation, Maryland.—Clark, W. B., 2; Lull, R. S.
Arundo.—Engelhardt, H.
Arve R. (Savoy).—Collett, L. W.
Asamayama Volcano (Japan).—Omori, F., 2.
Asaphidæ.—Raymond, P. E.
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Ash, conversion of lava into.—Perret, F. A.
Asia (Central).—Prinz, G.
——, earthquakes.—Chree, C.; Shaw, W. N.
——, mineral wealth.—Launay, L. de.
—— Minor.—Bauer, M., 2; Berg, G.; Coulant, E.; Coulbeaux, —; Endriss, W.; Launay, L. de; Leidhold, C.; Philippson, A.; Tanatar, J.
—— (Pacific margin).—Dacqué, E.
Asker (Norway).—Œyen, P. A., 3.
Asolanus.—Arber, E. A. N., 3.
Aspang (Lower Austria).—Mohr, H.
Aspenites.—Arthaber, G. von.
Asphalt, Abruzzi.—Novarese, V., 4.
——, Central Italy.—Thiel, G.
——, Hanover.—Schœndorf, F.
——, Jura Mts.—Combaz, P.; Schardt, H., 4.
——, Neuchâtel.—Breynaert, F.
——, Oklahoma.—Gould, C. N., 2.
Aspidoceras.—Burckhardt, C.
Aspidosaurus.—Case, E. C.
Aspleniopteris.—Berry, E. W.
Assam Series.—Seward, A. C., 5.
Asse (Brunswick).—Hœhne, E.
Assilina.—Douvillé, H., 2; Ravagli, M.
Assisi (Umbria).—Lotti, B., 4.
Assumption I. (Indian Ocean).—Fryer, J. C. F.
Astarte.—Bœse, E.; Johnson, D. W.
Asterochlœna.—Bertrand, P., 3.
Asteroidea, Devonian.—Clarke, J. M.
Asterotheca.—Fliche, P.
Astico-Brenta district (Venetia).—Fabiani, R.
Astieria.—Burckhardt, C.
Astore I. (Indian Ocean).—Fryer, J. C. F.
Astræopora.—Oppenheim, P.
Astrakhan (Russia).—Frolov, A. M.
Astralium.—Chapman, F., 2.
Astrocœnia.—Filliozat, M., 4; Oppenheim, P.
Astrodon.—Lull, R. S., 2.
Asturias (Spain).—Grosch, P., 2-4.
Atacama (Chile).—Walther, P.
Atacamite, twinning in.—Friedel, G.
Ataxioceras.—Douvillé, R., 5.
Athens (Greece).—Négris, P., 2.
Athyris.—Assmann, P.; Grosch, F., 2; Nechaev, A. V.
Atikokania.—Walcott, C. D., 6.
Atilia.—Toula, F., 2.
Atlantic Coast, stability of.—Johnson, D. W., 3.
—— Ocean, rocks from floor of.—McRobert, Lady R. W.; Peach, B. N., 2.
—— ——, volcanic islands of.—Komorowicz, M. von, 2.
—— —— (North), sub-oceanic physiography of.—Hull, E.
—— & Pacific types of coast.—Schwarz, E. H. L., 4.
Atlas Mts. (N. Afr.).—Gentil, L., 1, 3, & 4.
Atmosphere, composition of.—Clarke, F. W.
Atolls, Aldabra.—Fryer, J. C. F.
Atriplex.—Laurent, L., 2.
Atrypa.—Gortani, M.; Herrmann, F.; Kindle, E. M., 4.
Attica (Greece).—Ktenas, K. A.; Négris, P.; Renz, C., 2 & 5.
ATTWOOD, G., *Obit.* *See* Anon. *&* Bonney, T. G.
Aturia.—Canavari, I.
Atys.—Kaldhol, H.
Auburn (Maine).—Ford, W. E.
Aucella.—Bœhm, G.; Johnson, D. W.
Auchel (Pas-de-Calais).—Gosselet, J. A. A., 11.
Auckland (N.Z.).—Fraser, C.
Audeghem (Flanders).—Mourlon, M. F.
Augite.—Heslop, M. K.; Gonnard, F., 2; Schaller, W. T., 21.
Aulacostephanus.—Burckhardt, C.
Aulacothyris.—Hass, O.; Tommasi, A.
Aulolepis.—Woodward, A. S., 4.
Auloplax.—Schrammen, A.

Aulosteges.—Richthofen, F. von.
Auriculina.—Kaldhol, H.
Auriferous conglomerate, Witwatersrand.—Hatch, F. H., 2.
—— gravels, California.—Diller, J. S.
—— ——, Sierra Nevada.—Lindgren, W.
—— veins, W. Africa.—Hubert, H., 4.
——. *See also* Gold.
Aust Cliff (Gloucestershire).—Huene, F. von, 4; Reynolds, S. H.
Australia.—David, T. W. E.; Howchin, W., 2; Veatch, A. C. *See also* AUSTRALIA.
Australites.—Merrill, G. P.
Austria.—Mylius, H.; Schubert, R. J., 2; Seidlitz, W. von. *See also* Styria, *&c.*
——, Geological Survey.—Tietze, E. E. A., 2.
—— (Lower).—Abel, O., 4; Grengg, R.; Kober, L.; Kohn, V.; Mocker, F.; Mohr, H.; Petrascheck, W., 2; Reinhold, F., 1 & 2; Schaffer, F. X., 1 & 3; Sigmund, A., 2; Toula, F., 4.
—— (Upper).—Spengler, E.
Avas Mts. (Hungary).—Glinka, K. D.
Aves, Pleistocene.—Kormos, T., 3; Miller, 1 & 2; Harlé, E., 2 & 3.
——, Tertiary.—Miller, L. H., 2.
Avesnes (Nord).—Carpentier, A., 3.
Avicula.—Bœse, E., 3; Born, A.; Krenkel, E.; Tommasi, A.; Vadász, M. E.; Vinassa de Regny, P.
Aviculopecten.—Born, A.; Herrick, C. L.; Kindle, E. M., 4; Leriche, M.
Avignon (Bouches du Rhône).—Lanquine, A.
Avon Gorge.—Chapman, M. B.
Axinite.—Schaller, W. T., 2.
Axis.—Kadić, O.
Aylesbury (Bucks).—Davies, A. M.
Aymestry Limestone, Herefordshire.—Cox, A. H.
Ayrshire.—Kidston, R.; Steven, T. M.; Tyrrell, G. W.
Azurite.—Manasse, E., 3; Paul, F. P.

Bababudanite.—Smeeth, W. F., 2.
Bahia (Brazil).—Branner, J. C.
Bacău (Moldavia).—Enculescu, P.
Bactridium.—Canu, F.
Bactrites.—Kindle, E. M., 4.
Bactryllium.—Fliche, P.
Baculites.—Johnson, D. W.; Pervinquière, L.
Baddeleyite, Montana.—Rogers, A. F.
Bad Schmiedeberg (Saxony).—Linstow, O. von.
Baden (Germany).—Brændlin, E., 2.; Bubnoff, S. von, 1 & 2; Buri, T.; Buxtorf, A., 6; Cottreau, J.; Freudenberg, W.; Knupfer, S.; Kœnigsberger, J., 3; Niggli, P., 3; Schumacher, F.; Sœllner, J.; Stark, P.; Stehlin, H. G., 2. *See also* BADEN.
Badiotella.—Tommasi, A.
Bäumlerite.—Renner, O.
——, identity with chlorocalcite.—Zambonini, F.
Bagne, Val de (Valais).—Woyno, T. J.
Baguio Mineral District (Philippine I.).—Smith, W. D., 2.
Baiera.—Berry, E. W.; Seward, A. C., 2 & 7.
Bajocian, Switzerland.—Delhaes, W., 2.
Bakevellia.—Herrick, C. L.
Bakony (Hungary).—Papp, K. von, 2; Tæger, H.; Vadász, M. E., 2; Vinassa de Regny, P., 2-4.
Baku (Caspian).—Kalitzki, K., 2.
Balaclava (Crimea).—Arskinov, V. V.
Balagansk District (Irkutsk).—Seward, A. C., 7.
Balanus.—Bœse, E.
Balaton, Lake (Hungary).—Halaváts, G. von; Kadić, O.; Kormos, T., 7; Lœrenthey, I. von; Schréter, Z.; Tuzson, J.; Vitalis, S.; Weiss, A.
Balatonia.—Vinassa de Regny, P., 3.
Balatonites.—Arthaber, G. von, 2.
Balkans.—Macovei, G., 2; Murgoci, G., 3.
Balladonia (W. Austral.).—Glauert, L., 2.
Ballater (Aberdeenshire).—Barrow, G., 5.
Ballins (Tyrol).—Haas, O.
Ballycastle Coalfield (Antrim).—Arber, E. A. N., 9.
Ballypalady (Antrim).—Cole, G. A. J., 4.
Baltic Provinces (Russia).—Bassler, R. S.; Montessus de Ballore, F. de, 9.
—— glacial tracts, sandstone-blocks in.—Hausen, H., 2.
Baltic Sea-level.—Milthers, V.
——, variations in Interglacial times.—Werth, E., 2.
Baluchistan.—Cooper, C. F.; Das-Gupta, H. C.
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Banisteria.—Engelhardt, H.
Banka I. (D.E.I.).—Bijdendijk, J. G.
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Banket, Witwatersrand.—Horwood, C. B., 2; Schwarz, E. H. L., 6.
Banksia.—Engelhardt, H.
Bannock Overthrust (Idaho).—Richards, R. W.
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Baradla Cave, Abany-Torna District (Hungary).—Kadič, O., 2.
Baranya, (Hungary).—Kormos, T., 5.
Barbatia.—Bœse, E.
Barberaz, Petit (Savoy).—Hollande, D.
Barbierite.—Schaller, W. T., 1, 6, 18, 21.
Barcelona (Catalonia).—Gil, M. P.
Bardon Hill (Leicestershire).—Bosworth, T. O., 4.

Bari (Italy).—Sacco, F., 2.
Barite.—Bærtling, R.; Chervinskiĭ, P. N., 2; Gerhart, Hilda; Henglein, M., 1 & 2; Hess von Wichdorff, H., 2; Samoïlov, Y. V.; Schaller, W. T., 2; Vogt, T.
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Barro, Monte (Lombardy).—Bussandri, G.
Barwinek (Galicia).—Noth, R.
Barwonian, South Australia.—Chapman, F., 4.
Barysilite.—Kraus, E. H.
Barytes.—*See* Barite.
Barytine.—Anthoine, R.
Basalt.—Vialay, A.
——, Cape Verde Is.—Reinisch, R.
——, Caucasus.—Schafarzik, F.
——, Fernando Po.—Bœse, W.
——, Hanover.—Grupe, O.
——, Hesse.—Bauer, M.; Heykes, K.
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——, Juan Fernandez I.—Quensel, P. D., 2.
——, Manchuria.—Kotô, B.
——, New Zealand.—Bartrum, J. A.
——, Queensland.—Cameron, W. E., 6; Wearne, R. A.
——, Rhenish Prussia.—Grupe, O., 4.
——, St. Thomas I.—Bœse, W.
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Basaltic rocks, metasomatism of.—Vialay, A.
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——, Dutch East Indies.—Rack, G.
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——, New Zealand.—Bartrum, J. A.
——, drusy minerals in.—Hibsch, J. E., 2.
Basel (Switzerland).—Delhaes, W., 2; Leuthardt, F.
Basilicata (Italy).—Lorenzo, G. de.
Basin-range structure.—Burling, L. D.
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Basses Pyrénées.—Bresson, A.; Lapparent, J. de; Verschaffel, A.
Bastelica (Corsica).—Grandjean, F.; Maury, E., 2.
Bastnäsite.—Lacroix, A. F. A., 22; McDonald, D. P.; Kœchlin, R., 4.
Basutoland.—Stanley, G. H.
Bath (Somerset).—Masson, I.
Bathonian, Cracow.—Wójcik, K.
——, Switzerland.—Delhaes, W., 2.
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Bathyarca.—Toula, F.
Batillaria.—Oppenheim, P.
Batostoma.—Bassler, R. S.
Batostomella.—Lee, G. W.
Batrachia.—*See* Amphibia.
Battle Mt. (Nevada).—Lawson, A. C., 3.
Batûm (Caucasus).—Tvalchrelidze, A.
Bauria.—Broom, R., 3.
Bauxite.—Cole, G. A. J., 4; Dittler, E., 3 & 4; Phalen, W. C.; Vialay, A.
——, origin of Croatian.—Kišpatić, M., 2.
Baza (Granada).—Alvarez Aravaca, M.
Bavaria.—Bærtling, R., 3; Branca, C. W. F., 2; Fraas, E.; Frentzel, A.; Jooss, C. H., 3; Kœhne, W., 1–3; Lebling, C., 2; Rassmuss, H.; Rothpletz, A.; Schlagintweit, O., 2; Schreiter, G.; Schwager, A.
Beachville (Ontario).—Eve, A. S., 2.
Beania.—Thomas, H. Hamshaw.
Beaufort Shales.—Broom, R., 9.
Beaune (Côte d'Or).—Collot, L., 2.
Beaver, fossil.—Reichenau, W. von.
Beaver Co. (Utah).—Butler, B. S., 2.
Beaverdell (B.C.).—Reinecke, L.
Beaverite.—Butler, B. S., 3; Schaller, W. T., 21.
Beciu (Rumania).—Preiswerk, H.
Becksia.—Schrammen, A.
Bedford Formation, Ohio.—Prosser, C. S.
Bedfordshire.—Hill, W.
Beekite.—Wickes, W. H.
Beinn Bheula schists.—Peach, B. N., 5.
Bela.—Cerulli-Irelli, S.
Belemnitella.—Arkhanghelski, A. D.
Belemnites.—Werner, E.; *see also* Cephalopoda.
Belemnoidea, phylogeny of.—Steinmann, J. H. C. G. G., 2.
Belfast (Transvaal).—Johnson, J. P.
Belgium.—Anthoine, R., 3; Bonnet, R.; Brien, V., 1 & 2; Carpentier, A., 2; Delépine, G.; Hebbel, E.; Hind, W., 2; Malaise, C. H. G. L.; Rutot, A. L., 3; Stainier, X., 2 & 3; Tesch, P.; Van de Wiele, C.
Belgrandia.—Kormos, T., 17.
Belinurus.—Pruvost, P., 3.
Bellerophon.—Girty, G. H.; Herrick, C. L.; Herrmann, F., 3; Leriche, N.; Kindle, E. M., 4; Richthofen, F. von.
Belluno (Italy).—Dal Piaz, G., 2.
Belmez (Cordova).—Groth, J.
Beloceras.—Arthaber, G. von.
Belœil Mt. (Quebec).—O'Neill, J. J.
Belonorhynchus.—Woodward, A. S., 7.
Belt Series, Idaho.—Hershey, O. H.
Belvedere di Bargone (Parma).—Del Prato, A.
Bembridge Limestone, Dorset.—Bloomfield, A. H.; Keeping, H.
Ben Nevis.—*See* Nevis, Ben.

Benahadux (Almeria).—Marín, A.
Bendigo (Victoria).—Whitelaw, H. S.
—— Goldfield (Victoria).—Stillwell, F. L.
Bendigonian, Victoria.—Hall, T. S.
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Bengal.—Clarke, H. E.; Newton, R. B., 2.
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Benzoin.—Engelhardt, H., 1 & 2.
Berca (Rumania).—Preiswerk, H.
Berchtesgaden (Bavaria).—Rassmuss, H.
Berea Formation, Ohio.—Prosser, C. S.
Berekei (Baku).—Kalitzki, K., 2.
Bergamo (Lombardy).—Porro, C.
Bergen district (Norway).—Holmboe, J.; Kolderup, C. F., 6; Reusch, H. H.
Bergerac (Dordogne).—Randoin, A., 1 & 2.
Berkshire.—Hawkins, H. L., 4; Lupton, H. R.; White, H. J. O.
BERNARD's theories and evolution.—Lang, W. D., 3.
Berne (Switzerland).—Æberhardt, B., 3; Beck, P.; Buxtorf, A., 2; Gerber, E., 1 & 3; Luterbacher, J.; Nussbaum, F.; 1 & 2; Paulcke, W.; Truninger, E.; Wilckens, O., 3.
Bertrandite.—Bowman, H. L.; Vogt, T., 3.
Berwickshire.—Kidston, R., 2.
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Beryx.—Erasmo, G. d'; Johnson, D. W.
Besano (Lombardy).—Airaghi, C.
Besca Nuova (Veglia I.).—Remeš, M., 2.
Bessarabia.—Khomenko, I.; Kler, V. O., 2.
Bessillons (Var.).—Bertrand, L., 6.
Betafite.—Lacroix, A. F. A., 9.
Betroka (Madagascar).—Lacroix, A. F. A., 25.
Betula.—Litvinov, D. I.
Beudantite.—Schaller, W. T., 13.
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Bevensen (Hanover).—Olbricht, K.
Beyrichites.—Arthaber, G. von.
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——, Tin.—Hess, F. L.
——, U.S. Water-Supply.—Wood, B. D.
Bidentia.—Walcott, C. D.
Biebrich (Hesse-Nassau).—Jooss, C. H.; Kinkelin, F., 2; Neuenhaus, H.
Bielefeld (Westphalia).—Burre, O.; Mestwerdt, A., 2.
Bienenbüttel (Hanover).—Olbricht, K.
Bifarina.—Vadász, M. E., 2.
Bighorn River district (Wyoming).—Sinclair, W. J., 3.
Bihar (Hungary).—Kormos, T., 18.
Biksgád (Hungary).—Glinka, K. D.
Billitonites.—Merrill, G. P.
Bingen (Hesse).—Steuer, A.
Bingia Fargeri (Sardinia).—Schubert, R. J., 4.
Binn Valley (Valais).—Desbuissons, L.; Smith, G. F. H.; Solly, R. H., 2.
Biotite, pleochroic haloes in.—Hœvermann, G.
Biradiolites.—Bœse, E., 2; Toucas, A.
BIRD, C., *Obit.*—*See* Anon., 2.
Birds.—*See* Aves.
Birkenau (Hesse).—Henglein, M., 2.
Birnbaum (Posen).—Jentzsch, C. A., 4.
Bismantova (Emilia).—Stefano, Gius. de, 2.
Bismarck Archipelago (Pacific).—Sieberg, A.
Bismite.—Schaller, W. T., 2.
Bismuth.—Lacroix, A. F. A., 19; Lazarevic, M., 3; Pearce, W. C. W.
Bismuthinite.—Lacroix, A. F. A., 19.
Bistramia.—Steinmann, J. H. C. G. G., 7.
Bithynia.—Halaváts, G. von; Kormos, T., 8.
Bithynic Peninsula (Asia Minor).—Endriss, W.; Leidhold, C.
Bitterfeld (Saxony).—Linstow, O. von, 1–4.
Bittium.—Bartsch, P., 2; Toula, F., 2; Vignal, L.
Bitumen, Falkland Is.—Crook, T., 4.
——, Hungary.—Balogh, E.
——, Italy.—Thiel, G.
——, Pas-de-Calais.—Barrois, C., 2.
——, Saxony.—Ræfler, F.
——, Switzerland.—Schaay, J. H.
Bituminous shales.—Nœrregaard, E. M., 2.
Bivetia.—Cerulli-Irelli, S., 2.
Bivongi (Calabria).—Panichi, U., 2.
Black Combe District (Cumberland).—Smith, Bernard, 2.
Black Forest (Baden).—Bräuhäuser, M.; Bubnoff, S. von; Duerrfeld, V., 3–5; Henglein, M., 4; Königsberger, J., 3; Schumacher, F.
Black Hills (Wyoming).—Stone, R. W.
Black Valley (N.Y.).—Fairchild, H. L.
Blairmore (Alberta).—Leach, W. W.
Blanc, Mt. (Savoy).—Girardin, P.
Blastoidea, Devonian.—Herrmann, F., 3.
Blaubeuren (Würtemberg).—Fraas, E., 3.

Blekinge (Sweden).—Grœnwall, K. A., 2.
Blende, Colorado.—Guiterman, F.
——, Picos de Europa.—Llord y Gamboa, R.
Blödite.—Fox, C.
Blois (Loir-et-Cher).—Filliozat, M., 3.
Blomstrandite.—Chernik, G. P., 2; Lacroix, A. F. A, 1 & 9.
Blotherophyllum.—Kindle, E. M., 4.
Blowpipe, a new form of.—Suida, G.
Blueberry Mt. (New Hampshire).—Lahee, F. H., 3.
Blue Bird Mine (Montana).—Winchell, H. V.
Blue Ridge (Virginia).—Berry, E. W., 5.
Bluff District (N.Z.).—Wild, L. J.
Bochianites.—Pervinquière, L.
Bochum seismological observatory.—Mintrop, L.
Bog iron-ore.—Leiningen, W.
Boggy Creek (Victoria).—Howitt, A. M.
Bohemia.—Becke, F. J. K., 5; Frič, A.; Hibsch, J. E., 1 & 2; Hinterlechner, K.; Jaffé, R.; Kafka, J.; Köchlin, R., 1 & 3; Krehan, A.; Michel, H.
Bohuslän (Sweden).—Wiman, C., 2.
Boium Glacier (Norway).—Kolderup, C. F., 6.
Boknfjord (Norway).—Rekstad, J., 2.
Bole.—Cole, G. A. J., 4.
Bolitesia.—Schrammen, A.
Bolivia (S. Am.).—Armas, M.; Brown, G. E.; Steinmann, J. H. C. G. G., 7; Strauss, L. W.
Bolivina.—Vadász, M. E., 2.
Bollia.—Kindle, E. M., 4.
Bollnäs (Gefleborg).—Erikson, B.
Bolognola (Marches).—Fucini, A., 3.
Bombax.—Engelhardt, H.
Bonanza silver-ores.—Keyes, C. R., 4.
Bone-bed, Clacton.—Picton, H.
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Boom (Flanders).—Dorlodot, H. de.
Boracite.—Bœggild, O. B.
Borax, Asia Minor.—Coulbeaux.
——, Chile.—Chamberlin, R. T.
Bordertown (S. Austral.).—Brown, H. Y. L.
Boric acid in minerals.—Orlov, N.A.
Borings, Alessandria.—Roccati, A.
——, Bavaria.—Köhne, W.; Rothpletz, A.
——, Bohemia.—Hibsch, J. E.
——, Brunswick.—Höhne, E.
——, Canada.—Ingall, E. D.
——, Cardiff.—Strahan, A., 2.
——, Emilia & Lombardy.—Roccati, A., 2.
——, Étaples.—Pagniez, —, 2.
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——, Hungary.—Pálfy, M. von, 2; Roth von Telegd, L., 2 & 3.
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Borings, Kent.—Lamplugh, G. W., 9; Strahan, A.
——, London Basin.—Strahan, A., 3.
——, Nord.—Gosselet, J. A. A., 8; Pagniez, —, 1 & 3.
——, Normandy.—Nègre, G., 2.
——, Nottinghamshire.—Lamplugh, G. W., 8.
——, Pas-de-Calais.—Breton, L.; Gosselet, J. A. A., 5.
——, Prussia (E.).—Tornau, F.
——, Rhenish Prussia.—Quaas, A.
——, Russia.—Dess, B.
——, Saxony.—Picard, E.
——, Silesia.—Scupin, H.
——, Somerset.—McMurtrie, J.
——, South Australia.—Brown, H. Y. L.
——, Stirling.—Dron, R. W.
——, Surrey.—Whitaker, W.
——, temperatures in deep.—Königsberger, J., 8.
Borneo (E.I.).—Chernik, G. P., 1 & 3; Königsberger, J., 8; Rutten, L.; Scrivenor, J. B., 3; Stigand, I. A.; *See also* British Borneo.
Bornholm I. (Baltic).—Kranz, W.; Milthers, V.
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Bornite.—Laney, F. B.
Borrea.—Meunier, F., 3.
Bos.—Pohlig, H.; Stefano, Gius. de.
Bosnia.—Katzer, F., 2; Kerner, F. von, 5; Oppenheim, P.
Bosnopsammia.—Oppenheim, P.
Bosporus.—Andrusov, N. I.; Endriss, W.; Hörnes, R., 2.
Bostonite, Mayo.—Gardiner, C. I., 2.
Bostrychoceras.—Pervinquière, L.
Bothriceps.—Watson, D. M. S.
Bothriocidaris.—Jackson, R. T.
Bothrodendron.—Arber, E. A. N., 3.
Botrychioxylon.—Schott, D. H., 2.
Botryosella.—Schrammen, A.
Boulder Clay, Cumberland.—Smith, Bernard, 2.
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—— ——, Essex.—Irving, A., 4 & 6; Moir, J. R., 6.
—— ——, Suffolk.—Hill, E.; Moir, J. R., 4 & 5.
—— —— stones, striation of.—Cole, G. A. J.
—— ——. *See also* Glacial deposits, *&c.*
Boulders, Atlantic.—McRobert, Lady R. W.; Peach, B. N., 2.
——, Caithness Cretaceous.—Tait, D.
——, Hertfordshire.—Salter, A. E.
——, Ordovician glaciated.—Woodworth, J. B.
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Boundary-Fault Series, Perthshire.—Jehu, T. J., 1 & 2.
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Bourlers (Nord).—Carpentier, A.
Bourne R., diversions of.—Bromehead, C. N.
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Brabourne (Kent).—Lamplugh, G. W., 9.
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——, Cambrian.—Walcott, C. D., 4.
——, Carboniferous.—Girty, G. H.; Klebelsberg, R. von.; Lebedev, N.; Richthofen, F. von; Vadász, M. E.
——, Cretaceous.—Jacob, C., 2; Johnson, D. W.; Krenkel, E.; Peron, A.
——, Devonian.—Assmann, P.; Gortani, M.; Grosch, P., 2; Hermann, F., 1 & 3; Kindle, E. M., 4; Richthofen, F. von; Vadász, M. E.; Vinassa de Regny, P.
——, Eocene.—Popescu-Voitesti, I.
——, Jurassic.—Clapp, C. H., 3; Haas, O.; Jacob, C., 2.
——, Ordovician.—Matley, C. A., 2; Walcott, C. D., 2.
——, Permian.—Herrick, C. L.; Nechaev, A. V.
——, Permo-Carboniferous.—Glauert, L., 4.
——, Silurian.—Priem, F; Reed, F. R. C., 4; Richthofen, F. von; Steinmann, J. H. C. G. G., 7; Whiteaves, J. F.
——, Tertiary.—Vogl, V.
——, Trias.—Stefano, Giov. di; Tommasi, A.; Wittenburg, P. von.
Brachyaspis.—Raymond, P. E.
Brachychampfa.—Gilmore, C. W.
Brachylepas,—Withers, T. H., 4 & 5.
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Brachyphyllia.—Oppenheim, P.
Brachyphyllum.—Berry, E. W., 4; Lignier, O.
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Brád (Transylvania).—Schumacher, F., 2.
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Branchiopoda, Cambrian.—Walcott, C. D.
——, Trias.—Picard, E.
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Brazil Wood (Leicester).—Bennett, F. W., 2.
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——, Austria.—Seidlitz, W. von.
——, Manzanilla Tertiary.—Romanes, J.
——, Mayo Arenig.—Gardiner, C. I., 2.
——, Mull.—Bailey, E. B.
——, Carboniferous.—Brien, V. 1 & 3; Burton, R. C.; Carpentier, A.; Delépine, G., 2 & 3; Lohest, M., 2 & 3.
——, friction-.—Auten, J., 3.
——, leucitophyre.—Söllner, J., 3.
Brecciated limestone, Victoria.—Chapman, F., 7.
Breckenridge district (Colorado).—Lakes, A.; Ransome, F. L.
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Breitenau (Silesia).—Mohr, H., 3 & 4.
Brembana Valley (Lombardy).—Calvi, G.; Tommasi, A.
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Brenta-Astico district (Venetia).—Fabiani, R.
—— Group (Tyrol).—Schwinner, R.
Breslau (Silesia).—Tietze, O., 1 & 3.
Breunnerite.—Panebianco, H.
Briançon (Hautes-Alpes).—Martin, D., 2; Pussenot, C., 1–3.
Brianza, Upper (Lombardy).—Rassmuss, H., 3.
Brick-earths, Gloucestershire.—Richardson, L., 8.
—— ——, Kent.—Chandler, R. H., 3.
Brienz (Switzerland).—Seeber, H.
Brighstone Bay (I. of Wight).—Hooley, R. W., 1 & 2.
Brimaston (Pembroke).—Thomas, Herbert H.
Brioude (Haute-Loire).—Glangeaud, P., 5.
Brissopsis.—Vogl, V.
Bristol.—Reynolds, S. H.
Britholite.—Böggild, O. B., 2.
British Association Adv. Sci. 1912, geology at the.—Carter, W. L., 2.
British Borneo (E.I.).—Geikie, J. S.
British Columbia.—Allan, J. A.; Bateman, A. M.; Camsell, C., 1–4; Daly, R. A., 1–2; Drysdale, C. W.; Le Roy, O. E., 1–2; McConnell, R. G.; Malloch, G. S.; Palmer, H.; Porter, J. B.; Reinecke, L.; Robertson, W. F.; Schofield, S. J., 1–2; Walcott, C. D., 1, 2 & 7; *see also* BRITISH COLUMBIA Dep. Mines.

British East Africa.—Andrews, C. W.; Collie, G. L.; Evans, J. W., 4; Krenkel, E., 3.

British Guiana.—*See* British Guiana, Dep. Mines.

British Isles, Glacial Period & present flora of.—Reid, C.; Scharff, R. F., 2.

British Museum Karroo Reptilia. —Broom, R., 2.

Britanny.—Kerforne, F., 5.

Brochantite.—Löw, M., 2.

Brockbank, R. B., *Obit.*—*See* Holmes, T. V.

Brocken (Harz) granite.—Erdmannsdörffer, O. H., 2.

Brœgger, W. C.—*See* Kolderup, C. F.

Broken Hill (Rhodesia).—Zealley, A. E. V.

Bromberg (Prussia).—Manzel, P.

Bronteus.—Bather, F. A.; Gortani, M.

Brontichthys.—Hussakov, L.

Brookite-rock.—Fearnsides, W. G.

Broomfield (Victoria).—Baragwanath, W.

Brown-coal.—*See* Lignite.

Broxburn (Linlithgow).—Steuart, D. R.

Brugnatellite.—Hezner, L.

Bruguieria.—Ravagli, M.

Brunswick.—Höhne, E.

Brush, G. J., *Obit.*—*See* Dana, E. S., & Ford, W. E., 2.

Brussels Exhibition, geology at the. —Barrois, C., 7; Klein, W.; Fourmarier, P.

Bryozoa. *See* Polyzoa.

Buccari (Croatia).—Terzaghi, K.

Buccinum. — Cerulli-Irelli, S., 2; Sintzov, I. T., 2.

Buchan district (Victoria).—Chapman, F., 8.

Buchau (Bohemia).—Krehan, A.

Buchiceras.—Herrick, C. L., 2.

Buchiola.—Zamyatin, A. N., 3.

Buckinghamshire. — Davies, A. M.; Pocock, R. W., 2; Sherlock, R, L.; Treacher, Ll.

Bucsum (Hungary).—Palfy, M. von, 4.

Budapest (Hungary).—Schréter, Z., 3 & 4.

Buddon Wood (Leicester).—Bennett, F. W., 2.

Bu-Denib (N. Africa).—Termier, P., 6.

Budua (Dalmatia).—Bukowski, G. von.

Bühlach (Bavaria).—Köhne, W.

Bünde (Westphalia).—Brandes, T., 4.

Buenos Ayres.—Kuehn, F.

Bufo.—Moodie, R. L., 7.

Bugti Hills (Baluchistan).—Cooper, C. F.

Building-stones.—Greenwell, A.

—— ——, Canada.—Parks, W. A.

—— ——, Cornwall.—Flett, J. S., 4.

—— ——, Mysore.—Balaji Rao, B., 4.

—— —— United States.—Darton, N. H., 2; Hayes, C. W., 2.

—— ——, weathering of.—Hanisch, A.; Hirschwald, J., 1 & 2; Van der Kloes, J. A.

Buis, Le (Drôme).—Martin, D., 2.

Bukowina. — Niedzwiedzki, J.; Reinhard, M., 4.

Bulla.—Cerulli-Irelli, S.

Bullen, R. A., *Obit.*—*See* Anon., 3.

Bullina.—Toula, F., 2.

Bullinella.—Cerulli-Irelli, S.

'Bumble Hole' Cave (Worcestershire).—Cantrill, T. C.

Bumelia.—Engelhardt, H.

Bundoran (Donegal).—Wright, W. B., 3.

Bunter, Silesia.—Tietze, O., 3.

——, Thuringia.—Kolesch, K.

—— conglomerate, Rhenish Prussia.—Van Werveke, L., 3.

——. *See also* Trias.

Bunzlau (Silesia).—Scupin, H.

Burgessia.—Walcott, C. D.

Burma.—Brown, J. C., 1 & 2; Cotter, G. de P.; Craig, E. H. C.; Stuart, M.

Burnham Beeches (Bucks).—Treacher, Ll.

Burro Mts. (New Mexico).—Paige, S.

Bushveld Plutonic Series.—Molengraaff, G. A. F.

Butte (Montana).—Kirk, C. T.; Weed, W. H.

Buzău (Rumania).—Ionescu, N.; Preiswerk, H.

By (Norway).—Bjœrlykke, J. O.

Byro Station (W.A.).—Glauert, L., 4.

Byssacanthus.—Priem, F.

Bythinia.—Clark, W. B.

Bythocypris.—Kindle, E. M., 4.

Bythopora.—Bassler, R. S.

Bythotrephis.—Chapman, F., 11.

Cabrières d'Aigues (Vaucluse). — Cottreau, J.

Caddo Oilfield (Louisiana).—Hopper, W. E.

Cadmium sulphide.—Allen, E. T., 3.

Cadulus.—Toula, F., 2.

Cæcillianella.—Cerulli-Irelli, S.

Caenlochan Schists (S.E. Highlands).—Barrow, G., 5.

Cæsalpinia.—Engelhardt, H.

Cagliari (Sardinia). — Lovisato, D., 2; Pilotti, C., 3.

Cahétie (Transcaucasia).—Ryabinin, A. N., 2.

Caicara (Venezuela).—Bendrat, T. A.

Caiman.—Rovereto, C.

Cainozoic.—*See* Tertiary.

Cairns, R., *Obit.*—*See* Judd, J. W.

Calabona (Sardinia). — Manasse, E., 3; Serra, A.

Calabria (Italy).—Chelussi, I., 6; Nasini, R., 2; Panichi, U., 2; Ugolini, R.

Calafatite.—Marín, A.

Calamine.—Paul, F. P.; Seebach, M.

Calamites.—Arber, E. A. N., 3 & 4; Groom, P.; Johnstone, M. A.; Thomas, H. Hamshaw, 2; Vernon, R. D.

Calamatina. — Groom, P.; Johnstone, M. A.; Lewis, F. J.

Calamocladus.—Arber, E. A. N., 7; Thomas, H. Hamshaw, 2.
Calamophyllia.—Clapp, C. H., 3; Oppenheim, P.
Calamopora.—Bassler, R. S.
Calamostachys.—Arber, E. A. N., 4; Renier, A., 2; Vernon, R. D.
Calc-silicate rocks of Moravian Schönberg.—Kretschmer, F.
Calcasacco (Sicily).—Silvestri, A., 2.
Calcisphæra.—McLean, R. C.
Calcite.—Danckers, R; Jahn, A.; Schaller, W. T., 2; Schauf, W.; Tacconi, E.
——, corrosion by acids of.—Gaubert, P., 3.
—— from underground water.—Schardt, H., 3.
——, igneous rocks &.—Workman, Rachel.
——, twinning of.—Kreutz, S., 4.
Calcium carbonate in fossil shells.—Cole, G. A. J., 3.
—— carbonates, melting points of.—Bœke, H. E., 3.
Calcutta (Bengal).—Newton, R. B., 2.
CALDERON Y ARANA, S., *Obit.*—*See* Anon., 4.
Caledon Bay (South Australia).—Murphy, W. F.
Caledonia Springs (Ottawa).—Eve, A. S.
Calhoun Co. (Illinois).—Weller, S.
California.—Anderson, F. M.; Baker, C. L., 1 & 3; Bartsch, P., 1-3; Böse, E., 4; Clapp, W. B.; Clark, B. L.; Diller, J. S.; Dumble, E. T.; Doolittle, J. E.; Eakle, A. S., 2; Hayes, C. W., 2; Johnson, D. W., 2; Johnson, H. R.: Lindgren, W.; Louderback, G. D.; Martin, B.; Merriam, J. C.; Miller, L. H., 2; Schaller, W. T., 7 & 24; Smith, J. P., 1 & 2; True, F. W., 4.; Wittich, E., 6.
Callao (Peru).—Valencia, A. R.
Calldorf (Lippe).—Mestwerdt, A.
Callibrochis.—Schrammen, A.
Callicorna.—Engelhardt, H.
Calliostoma.—Böse, E.; Weaver, C. E., 2.
Callipteridium.—Seward, A. C., 4.
Callista.—Toula, F., 2.
Callistemophyllum.—Engelhardt, H.
Callodictyon.—Schrammen, A.
Callopora.—Bassler, R. S.; Cumings, E. R.
Callovian, Bernese Alps.—Seeber, H.
——, Cracow.—Wójcik, K.
——, Dutch East Indies.—Böhm, G., 2.
——, France.—Lambert, J., 2.
——, Switzerland.—Delhaes, W., 2.
Călmătiul (Rumania).—Pană, A.
Calvados (Normandy).—Cayeux, L., 4.
Calymene.—Reed, F. R. C., 4; Steinmann, J. H. C. G. G., 7.
Calyptrella.—Schrammen, A.
Camaguey (Cuba).—Cumings, W. L.; Spencer, A. C.
Camarophoria.—Gortani, M.; Nechaev, A. V.; Vadász, M. E.
Camarotœchia.—Garwood, E. J.
Cambrian, Åland I.—Tanner, V.
——, America (N.).—Walcott, C. D., 3 & 5.
——, Belgium.—Malaise, C. H. G. L., 1, 3 & 4.
——, Bolivia.—Steinmann, J. H. C. G. G., 7.
——, British Columbia.—Walcott, C. D., 1 & 7.
——, Carnarvonshire.—Fearnsides, W. G.
——, Herefordshire.—Cox, A. H.
——, Luxemburg.—Fourmarier, P., 6.
——, Norway.—Holtedahl, O., 2.
——, Poland.—Siemiradzki, J.
——, Russia.—Rzhonsnitzy, A.
——, Sardinia.—Pilotti, C., 2; Taricco, M.
——, Scotland.—Campbell, R., 1 & 3; Jehu, T. J., 1 & 2.
——, Shropshire.—Cobbold, E. S.
——, Sweden.—Liden, R.; Moberg, J. C.
——, Western Australia.—Glauert, L., 3.
Cambrian faunas.—Peach, B. N.; Steinmann, J. H. C. G. G., 6.
—— glaciation.—Howchin, W., 2.
—— palæogeography.—Jukes-Browne, A. J., 3; Peach, B. N.; *see also* Palæozoic, Salmian, *&c.*
Cambro-Ordovician, British Columbia.—Walcott, C. D., 2.
Cambridgeshire.—Hughes, T. McK., 1 & 2; Keith, A.
Camelodon.—Granger, W.
Camelus.—Stefănescu, G.
Cameroptychium & *Camerospongia.*—Schrammen, A.
Camonica Valley (Lombardy).—Patrini, P.
Campania (Italy).—Angelis d'Ossat, G. de.
Campbeltown Coalfield (Argyll).—Galloway, T. L.
Campi Phlegræi (Campania).—Sabatini, V.
Campiglio (Tyrol).—Schwinner, R., 2.
Campine (Belgium).—Fourmarier, P., 9; Gillet, C.
Campophyllum.—Chapman, F., 8; Garwood, E. J.
Camptosaurus.—Gilmore, C. W., 3.
Campylæa.—Téglás, G.
Campylodus.—Priem, F.
Canada, building and ornamental stones.—Parks, W. A.
——, clays.—Keele, J.; Rees, H., 2 & 3.
——, coal.—Craig, E. H. C., 2; Dowling, D. B., 2; Porter, J. B.
——, mica.—Schmid, H. S. de.
——, mineral production.—*See* CANADA, Dep. Mines.
——, peat.—Anrep, A., *fil.*; Haanel, B. F., 2.

Canada, vertebrate palæontology. — Lambe, L. M., 2; *see also* CANADA, Dep. Mines.
Canadia.—Steinmann, J. H. C. G. G., 6.
Canary Is. (Atlantic).—Brun, A.
Cancellaria.—Cerulli-Irelli, S., 2; Toula, F., 1 & 2.
Cancellophycus.—Fliche, P.
Cancrinite.—Thugutt, St. J.
Caney Shales, glaciated boulders in.—Woodworth, J. B.
Caninia.—Garwood, E. J.
Canis.—Kormos, T., 5; Stefano, Gius. de.
Canobius.—Traquair, R. H., 2.
Cantabrian Mts. (Spain). — Bertrand, L., 8; Grosch, P., 2.
Cantal (France).—Mouret, G., 2.
Cantioscyllium.—Woodward, A. S., 3.
Cape Breton.—Brodie, W. S.
Cape of Good Hope Province (S. Afr.).—Broom, R., 2; Nellmapius, E. H.; Rogers, A. W., 2; Rose, J. G.; Schwarz, E. H. L., 2, 3 & 6; Versfeld, W.; *see also* CAPE OF GOOD HOPE.
Cape River Goldfield (Queensland).—Marks, E. O., 5.
Cape System, Transvaal.—Molengraaff, G. A. F.
Caposele (Campania).—Angelis d'Ossat, G. de.
Capra.—Harlé, É., 2; Stefano, Gius. de.
Capreolus.—Stefano, Gius. de.
Capulus.—Guppy, R. J. L., 2; Vadász, M. E.
Carbonia.—Pruvost, P.
Carbonicola.—Hind, W., 2; Vernon, R. D.
Carboniferous, Asia (Central).—Vadász. M. E.
——, Attica.—Renz, C., 2 & 5.
——, Belgium.—Brien, V., 1 & 2; Burton, R. C.; Carpentier, A., 2; Cornet, J., 1 & 3; Delépine, G., 1 & 3; Fourmarier, P., 10; Renier, A.; Stainier, X., 3.
——, Breitenau.—Mohr, H., 3 & 4.
——, Bristol District. — Chapman, M. B.; Reynolds, S. H.
——, Cantal.—Mouret, G., 2.
——, Carnic Alps.—Gortani, M., 2.
——, China.—Richthofen, F. von.
——, Cornwall & Devon.—Reid, C., 3.
——, Cracow.—Wiśniowski, T.
——, Derbyshire.—Sargent, H. C., 2.
——, Donegal.—Wright, W. B., 3.
——, Gloucestershire. — Arber, E. A. N., 4; Sibly, T. F., 2.
——, Hautes Alpes.—Pussenot, C., 3.
——, Illinois.—Moodie, R. L., 6; Udden, J. A.
——, Indo-China.—Mansuy, H.
——, Isle of Man.—Smith, J.
——, Kashmir. — Hayden, H. H.; Middlemiss, C. S.
——, Kent.—Arber, E. A. N., 6; Bolton, H.
Carboniferous, Massachusetts. — White, D., 2.
——, Nord.—Carpentier, A., 1, 2, & 5; Pruvost, P., 1 & 3.
——, Northumberland.—Haselhurst, S. R.
——, North-West England.—Garwood, E. J.
——, Nova Scotia.—Bell, W. A.
——, Ohio.—Cushing, H. P., 2
——, Oklahoma.—Girty, G. H.
——, Russia.—Khimenkov, V. G.; Lebedev, N.; Sergĕev, A. S.
——, Scotland. — Bosworth, T. O., 3; Carruthers, R. G.; Craig, R. M., 2; Gordon, W. T., 3; Macgregor, M.
——, Sinai.—Klebelsberg, R. von.
——, Somerset.—Sibly, T. F.
——, Suez.—Couyat, J., 2.
——, Tennessee.—Bassler, R. S., 2.
——, Wales (S.).—Strahan, A., 2.
——, Warwickshire.—Vernon, R. D.
——, Yorkshire.—Arber, E. A. N., 5; Gilligan, A.; Kendall, P. F., 2; Wilmore, A.
—— climate.—Woodworth, J. B.
—— vegetation, types of.—Potonié, H., 3.
—— zones.—Lang, W. D., 2; *see also* Arachnida, Cephalopoda, *&c.*, Carboniferous.
Carborundum. — Baumhauer, H., 2; Glinka, S.
Carcharias.—Stefano, Gius. de, 3.
Carcharodon.—Canavari, I.; Savchenko, A. S.; Stefano, Gius. de, 2 & 3.
Cárdenas (Mexico).—Böse, E., 2.
Cardiidæ, Tertiary.—Andrusov, N. I., 2.
Cardiocarpus.—Vernon, R. D.
Cardiola.—Born, A.
Cardiomorpha.—Richthofen, F. von.
Cardita.—Böse, E., 3; Schlagintweit, O.
Cardium.—Böse, E., 3; Cotter, G. de P.; Cossmann, M., 2; Herrick, C. L., 2; Sintzov, I. T., 2; Toula, F., 2; Weaver, C. E., 2.
Carcinophyllum.—Garwood, E. J.
Carelmapu (Chile).—Maier, E.
Cargill Mt. (N.Z.).—Bartrum, J. A.
Cărjelar (Rumania).—Simionescu, I., 2.
Carn Chuinneag (Ross-shire).—Peach, B. N., 4.
Carnallite.—Bœke, H. E., 2.
Carnarvonshire.—Fearnsides, W. G.
Carnegieite.—Bowen, N. L., 2.
Carnforth district.—Garwood, E. J.
Carnic Alps.—Gartoni, M., 1 & 2; Salomon, W.
Carniola.—Kropáč, J.
Carnivora.—Matthew, W. D., 3 & 4; Merriam, J. C.; *see also* Mammalia.
Carnot (Algeria).—Depéret, C., 2
Carnotite.—Wherry, E. T., 4.
Carolina, North (U.S.A.). — Hayes, C. W., 2; Laney, F. B.; Nitze, H. B. C., 1 & 2; Pogue, J. E.
—— (South).—Brown, A. P., 2.

Carpathian Mts.—Athanasiu, S., 2; Bergeron, J., 3; Bernoulli, W.; Götel, W.; Lozinski, W. von, 3; Mrazek, L., 2 & 3; Murgoci, G., 2; Pamfil, G. P.; Popescu-Voitești, I., 5; Reinhard, M., 2; Sawicki, L.; Schafarzik, F., 2; Simionescu, I.
Carpinus.—Engelhardt, H.; Krishtofovich, A. N., 4.
Carrara marble, minerals from. — Achiardi, G. d', 1 & 2.
CARRUTHERS, W., *Biogr.*—*See* Anon., 5.
Carruthersella.—Garwood, E. J.
Carson City (Nevada).—Smith, W. S. T.
Carya.—Engelhardt, H.
Caryocaris.—Chapman, F., 6; Woodward, H.
Casadepaga district (Alaska). — Smith, P. S.
Casale, Mt. (Sicily).—Fucini, A., 5.
Casearia.—Kolb, R.
Caspian District.—Andrusov, N. I., 2.
Cassia.—Engelhardt, H.
Cassidaria.—Canavari, I.; Cerulli-Irelli, S., 2.; Weaver, C. E., 2.
Cassidea.—Cerulli-Irelli, S., 2.
Cassidulus.—Popescu-Voitești, I.
Cassiterite.—Collins, J. H.; Liebisch, T.; Schaller, W. T., 21; Scrivenor, J. B., 2.
Castanea.—Engelhardt, H., 1 & 2.
Castelgomberto (Venetia).—Kranz, W., 3.
Castelnuovo di Porto (Italy).—Sirovich, G.
Casterton (Victoria).—Dunn, E. J., 2.
Castle Cornet (Guernsey).—Bonney, T. G., 5.
Castlemaine (Victoria).—Dunn, E. J., 11.
Castor.—Kellogg, L.; Stefano, Gius. de.
Casuarina.—Engelhardt, H.
Catopterus.—Eastman, C. R.
Cattaro (Dalmatia).—Bukowski, G. von.
Caucasus.—Besborodko, N., 2; Douvillé, R., 5; Gherasimov, A. P., 2; Launay, L. de; Oswald, F.; Papp, K. von; Ryabinin, A. N., 3; Schafarzik, F.; Timofeev, K. I., 1 & 3; Tvalchrelidze, A.; Wittenburg, P. von, 3.
Caulopteris.—Fliche, P.
Cave-deposits, Crete.—Bate, D. M. A.
Caverns and caves, Brazil.—Krone, R.
—— ——, California.—Miller, L. H., 2.
—— ——, Croatia.—Kormos, T., 12.
—— ——, France.—MacCurdy, G. G.
—— ——, Hungary. — Hillebrand, E.; Kadić, O., 2; Kormos, T., 5 & 17; Nyary, A.; Pávai-Vajna, F. von; Schréter, Z., 5; Siegmeth, K. von; Strömpl, G., 1 & 2.
—— ——, Lancashire.—Jackson, J. W., 2 & 3.
—— ——, Nova Scotia.—Prest, W. H., 2.
—— ——, Ofnet.—Schmidt, R. R.
—— ——, Switzerland.—Fleury, E.
—— ——, Transylvania.—Vargha, G.
Caverns and caves, Worcestershire.—Cantrill, T. C.
—— ——, development of.—Fearnsides, W. G.
—— ——, human remains in.—Munro, R.
Cavispongia.—Kolb, R.
Cebolla district (Colorado).—Singewald, J. T. *fil.*, 4.
Cedroxylon.—Fliche, P.; Gothan, W.
Cedrus.—Berry, E. W.
Ceiriog, R. (N. Wales).—Wills, L. J.
Celastrophyllum.—Berry, E. W.; Engelhardt, H.
Celastrus.—Engelhardt, H.
Celebes (D. E. I.).—Abendanon, E. C.; Ahlburg, J., 2; Sarasin, P., 2.
Celestine.—Hengleim, M., 3.
Cellina Basin (Venetia).—Dainelli, G., 2.
Celtites.—Tuzson, J.
Celtium.—Urbain, G.
Celyphia.—Vinassa de Regny, P., 2.
Cement-materials, Fabriano.—Canavari, I.
Cenomanian, Peru.—Schlagintweit, O.
Centrina.—Stefano, Gius. de, 3.
Centrosaurus.—Lambe, L. M.
Centrosia.—Schrammen, A.
Cephalaspis.—Eastman, C. R.
Cephalonia I. (Greece).—Eginitis, D.
Cephalopoda, Carboniferous.—Girty, G. H.; Hind, W.; Jackson, J. W., 4; Richthofen, F. von.
——, Cretaceous. — Arkhanghelski, A. D.; Böse, E., 3; Burckhardt, C.; Diener, C., 2; Herrick, C. L., 2; Johnson, D. W.; Joleaud, L.; Jukes-Browne, A. J., 2; Kilian, C. C. W., 6; Krenkel, E.; Leriche, M., 3; Papp, K. von; Pavlov, A. P.; Pervinquière, L.; Schlagintweit, O.; Stather, J. W., 3; Stolley, E., 1-3; Till, A., 2.
Cephalopoda, Devonian.—Born, A.; Gortani, M.; Hermann, F., 3; Vinassa de Regny, P.
——, Jurassic. — Böhm, G., 2; Buckman, S. S., 2; Burckhardt, C.; Clapp, C. H., 3; Douvillé, R., 5; Lemoine, P.; Papp, K. von; Pavlov, A. P.; Till, A., 1 & 2; Wepfer, E.; Werner, E.
——, Lias.—Buckman, S. S.; Fucini, A., 3; Haas, O.; Rassmuss, H., 3; Renz, C., 6.
——, Mesozoic. — Böhm, G.; Douvillé, R.
——, Ordovician.—Ruedemann, R.
——, Oxfordian.—Klebelsberg, R. von, 6.
——, Permian.—Böhm, J., 3.
——, Portlandian. — Burckhardt, C.; Sauvage, H. E., 3.
——, Silurian.—Chapman, F., 11; Crépin, A.; Lee, G. W., 2; Priem, F.; Reed, F. R. C., 4; Steinmann, J. H. C. G. G., 7; Richthofen, F. von; Whiteaves, J. F.
——, Tertiary.—Canavari, I.; Vogl, V.;

Cephalopoda, Trias.—Airaghi, C.; Arthaber, G. von, 1 & 2; Burckhardt, C., 2; Richthofen, F. von; Solopek, M.

Cephalotaxopsis.—Berry, E. W., 1 & 4.

Ceramopora & Ceramoporella.—Bassler, R. S.

Cerastoderma.—Cossmann, M., 2.

Ceratites.—Arthaber, G. von, 2.

Ceratodus.—Chapman, F., 12.

Ceratonia & Ceratopetalum.—Engelhardt, H.

Ceratopyge.—Walcott, C. D., 2.

Cerdocyon.—Kormos, T., 5.

Cerillos Hills (New Mexico).—Johnson, D. W.

Ceriopora.—Papp, K. von., 2; Vinassa de Regny, P., 4.

Cerithiopsis.—Bartsch, P.; Vignal, L.

Cerithiidæ, Tertiary.—Vignal, L.

Cerithium.—Böse, E., 2; Kinkelin, F.; Oppenheim, P.; Toula, F., 2; Vignal, L.

Ceromya.—Papp, K. von.

Cerro Candelaria (Costa Rica).—Romanes, J.

Cerro de Estaño (Brazil).—Wittich, E., 5.

Cerussite.—Dürrfeld, V., 2; Tacconi, E., 1 & 2.

Cervus.—Fabiani, R., 4; Kadić, O.; Kormos, T., 17; Menzel, H., 4; Stefano, Gius. de; Szentpétery, S. von, 2.

Cestracion.—Woodward, A. S., 3.

Cetacea.—Abel, O., 2; Bassani, F.; Chapman, F., 13; True, F. W., 3 & 4; *see also* Mammalia.

Cetina Valley (Dalmatia).—Kerner, F. von, 4; Schubert, R. J.

Ceylon.—Bastin, E. S.; Claremont, L.; Launay, L. de.

Chablais District (Savoy).—Collet, L. W.

Chad, Lake (Sudan).—Garde, G.

Chaduizhinsk (Kuban).—Bogdanovich, K. I.

Chætetes.—Richthofen, F. von; Vinassa de Regny, P., 4.

Chalcocite.—Laney, F. B.

Chalk, Berkshire.—White, H. J. O.

——, Devon & Dorset.—Woodward, H. B., 4.

——, Eure-et-Loir.—Filliozat, M.

——, Hertfordshire.—Kidner, H., 2; Roberts, G. J.

——, Kent.—Dibley, G. E., 1–3; Priest, S.

——, Oxfordshire.—Hawkins, H. L., 5.

——, Pas-de-Calais.—Gosselet, J. A. A., 4 & 11.

——, Picardy.—Leriche, M., 3.

——, Suffolk.—Boswell, P. G. H.

——, Westphalia.—Löscher, W.

——, iceand.—Deeley, R. M., 6; Pocock, R. W.

——, two stages in Upper.—Jukes-Browne, A. J., 2.

——, water from.—Thresh, J. C.

—— cliffs, Devon.—Brydone, R. M., 2.

Chalonnais (France).—Rouyer, C.

Chalyk-Tau (Tian Shan).—Leuchs, K.

Chama.—Cossmann, M., 2.

Chambéry (Savoy).—Delebecque, A.; Gignoux, M., 2; Révil, J., 2; Riche, A., 1 & 2.

Channel Is.—Bonney, T. G., 5.

Chapelle-aux-Saints (Corrèze).—Boule, M.

Charente (France).—Anthony, R.; Franchet, L.; Martin, H.

Charlotte Plains Mine (Victoria).—Dunn, E. J., 9.

Charlottenbrunn (Silesia).—Berg, G., 2.

'Charmouthian.'—Lang, W. D.

Charmouthian, Italy.—Fucini, A., 3; Rassmuss, H., 3.

Charnockite.—Arsandaux, H., 3.

Charnwood (Leicestershire).—Bennett, F. W.; Bosworth, T. O., 4.

Chasmatopora.—Bassler, R. S.

Chattanoogan Series.—Kindle, E. M., 2; Ulrich, E. O.

Châteaubriant (Loire-Inférieure).—Kerforne, F., 2.

Châteaudun (Eure-et-Loir).—Dollfus, G. F., 4 & 5; Filliozat, M.

Cheam (Surrey).—Whitaker, W., 2.

Cheduba Straits (Burma).—Brown, J. C., 2.

Cheesewring Quarry (Cornwall).—Bowman, H. L.

Cheirurus.—Herrmann, F., 1 & 3; Steinmann, J. H. C. G. G., 7.

Cheleken I. (Caspian).—Ivanov, A. P.; Kalitzki, K.; Weber, V.

Cheliconus.—Toula, F., 2.

Chelone.—Wegner, T.

Chelonia.—Dacqué, E., 2; Hay, O. P., 2; Misuri, A.

Cheltenham (Gloucester).—Garrett, J. H.; Richardson, L., 3 & 6.

Chemical crystallography.—Barker, T. V.; Tutton, A. E. H.

—— geology.—Elsden, J. V.

—— statics, geology &.—Marc, R.

Chemnitzia.—Herrick, C. L., 2.

Chenopus.—Cerulli-Irelli, S., 2.

Cherts, East Indies.—Scrivenor, J. B., 3; *see also* Radiolarian cherts.

Chertsey (Surrey).—Bromehead, C. N.

Cheshire.—Beasley, H. C.; Hewitt, W.; Maidwell, F. T., 3; Travis, C. B.

Chiastolite.—Ward, L. K.

Chickballapur (Mysore).—Wetherell, E. W.

Chihuahua (Mexico).—Böse, E., 3; Seebach, M.

Chile.—Avalos, C. G.; Chamberlin, R. T.; Fuenzalida, J. del C.; Maier, E.; Rudolph, E.; Steffen, H., 1 & 2; Steinmann, J. H. C. G. G.; Sundst, L.; Walther, P.; Woodworth, J. B., 3.

Chilmark (Wiltshire).—Ord, T.

Chilotrypa.—Bassler, R. S.

Chiltern Hills (Buckinghamshire).—Pocock, R. W., 2.

China.—Caldwell, G. S.; Launay, L. de; Legendre, A. F.; Read, T. T.; Richthofen, F. von; Vadász, M. E.

——, bibliography of geology, &c.—Chung Yu Wang.

Chinchilla (Queensland).—Marks, E. O.

Chione.—Böse, E.; Weaver, C. E., 2.

Chipping Campden (Gloucestershire).—Richardson, L., 7.

Chironico (Ticino).—Schardt, H., 2.

Chistochina district (Alaska).—Moffit, F. H.

Chitaldrug district (Mysore).—Balaji Rao, B., 3; Sen, A. M.

Chlamys.—Böse, E.: Toula, F.

Chlorite, new species of.—Wolff, J. E.

Chlorocalcite, its identity with bäumlerite.—Zambonini, F.

Chlorostoma.—Weaver, C. E., 2.

CHOFFAT, P., bibliography of.—*See* Choffat, P., 2.

Chondrites.—Fliche, P.

Chondrodonta.—Parona, C. F., 3.

Chondrula.—Kormos, T., 8.

Chonelasma.—Schrammen, A.

Chonetes.—Girty, G. H.; Herrick, C. L.; Kindle, E. M., 4; Vadász, M. E.

Chordites.—Fliche, P.

Choristoceras.—Clapp, C. H., 3.

Christchurch (N.Z.).—Hilgendorf, F. W.; Hogben, G., 2.

Chrome iron-ore.—Besborodko, N., 2; Venkalaramaiya, B. N.

Chromium.—Watson, T. L., 3.

Chrysoberyl.—Whitlock, H. P.

Chrysobothris.—Cockerell, T. D. A., 2.

Chrysodomus.—Weaver, C. E., 2.

Chrysophrys.—Stefano, Gius. de, 2 & 3.

Chrysophyllum.—Engelhardt, H.

Cidaris.—Hawkins, H. L., 4; Leriche, M., 3.

Cigale, Bay (Lussin I.).—Gegenbauer, V.

Cimini Hills (Rome).—Sabatini, V., 2.

Cimoliasaurus.—Bogholubov, N. N., 1 & 5.

Cinchonidium.—Engelhardt, H.

Cincinna.—Kormos, T., 8; Lörenthey, I. von.

Cinclidella.—Schrammen, A.

Cinnabar, Arizona.—Hayes, C. W., 2.

——, optical properties of.—Rose, H.

Cinnamomum.—Engelhardt, H.; Krishtofovich, A. N., 4.

Circophyllia.—Oppenheim, P.

Cirques, Massachusetts.—Emerson, B. K.

Cirripedia, Cretaceous.—Nielson, K. B.; Withers, T. H., 1–4.

——, Devonian.—Gortani, M.

——, Jurassic.—Withers, T. H., 5.

——, Tertiary.—Böse, E.; Canavari, I.

Cissites.—Berry, E. W.

Citellus.—Kellogg, L.

Clacton (Essex).—Picton, H.

Cladangia.—Filliozat, M., 2.

Cladocera, Quaternary.—Scourfield, D. J.

Cladocova.—Filliozat, M., 2.

Cladophlebis.—Berry, E. W., 1 & 6; Fliche, P.; Krishtofovich, A. N.; Seward, A. C., 2, 3 & 7; Thomas, H. Hamshaw; Zeiller, R.

Cladoselache.—Eastman, C. R.

Clathrodictyon.—Kirkpatrick, R., 5; Richthofen, F. von.

Clathrophyllum.—Fliche, P.

Clathropteris.—Thomas, H. Hamshaw.

Clathurella.—Toula, F.

Clay-bands in limestone.—Sargent, H. C., 2.

Clay, brick- and fire-.—Richardson, L., 8.

——, formation of.—Thugutt, St. J., 3.

——, natural history of.—Searle, A. B.

Clay-with-flints, Buckinghamshire.—Sherlock, R. L.

——, Devon.—Woodward, H. B., 4.

Clays, Canada.—Keele, J.; Ries, H., 2 & 3.

——, Dogger Bank.—Stather, J. W., 2.

——, Florida.—Hall, A. A.

——, Lough Neagh.—Cole, G. A. J., 4.

——, nomenclature of.—Dittler, E., 3.

Claygate (Surrey).—Dewey, H., 2.

Claygate Beds, Kent.—Leach, A. L.

Clermont Ferrand (Puy de Dôme).—Glangeaud, P., 5; Mouret, G., 3.

Cleveland (Yorks.).—Stead, J. E.

Cleveland Dyke.—Heslop, M. K., 2.

Cleveland Shale, Ohio.—Cushing, H. P., 2.

Climactichnites.—Walcott, C. D., 4.

Climate and soil-formation, Aradhegyalja Mts.—Treitz, P., 3.

——, features of arid.—Keyes, C. R., 2.

Climates, European post-diluvial.—Marek, R.

——, geological.—Lepsius, R., 3.

——, Quaternary.—Jensen, H. I., 2; Schmidt, R. R., 2; Schultz, A.; Sernander, R., 2 & 3; Yokoyama, M.

Climatic zones, Devonian.—Matthew, G. F., 2.

Clionites.—Burckhardt, C., 2.

Clisiophyllum.—Garwood, E. J.; Vaughan, A.

Clonograptus.—Hall, T. S.

—— -Beds, Scania.—Moberg, J. C., 2.

Clünas (Lower Engadin).—Grubenmann, U.

Clunes Goldfield (Victoria).—Dunn, E. J., 7.

Clymenia.—Born, A.

Clypeaster.—Hawkins, H. L., 1 & 6; Lovisato, D., 1–3; Stefanini, G., 2.

Cnemidiastrum.—Kolb, R.

Coagh Conglomerate.—Cole, G. A. J., 4.

Coal, Africa & West Indies.—Evans, J. W., 4.

——, Alaska.—Brooks, A. H.; Martin G. C., 3; Smith, P. S.

——, British Columbia.—*See* BRITISH COLUMBIA, Dep. Mines.

——, Canada.—Dowling, D. B., 2, 3 & 4; *see also* CANADA, Dep. Mines.

Coal, Dakota (S.) & Wyoming.—Stone, R. W.
——, Illinois.—Udden, J. A.
——, New South Wales.—*See* NEW SOUTH WALES.
——, New Zealand.—Morgan, P. G.; *see also* NEW ZEALAND, Dep. Mines.
——, Nord & Pas-de-Calais.—Mettrier, —.
——, Philippine Is.—Cox, A, J.; *see also* PHILIPPINE Is.
——, Queensland.—Cameron, W. E., 2; Marks, E. O., 1 & 2.
——, Sarawak.—Geikie, J. S.
——, Spitsbergen.—Patterson, W. H.
——, United States.—Campbell, M. R.
——, Washington.—Smith, E. E.
——, analyses of.—Horváth, B. von.
——, ankerite in.—Crook, T., 3.
——, bright laminæ in.—Pringle, J.
——, carbonization of.—Lewes, V. B.
——, classification of.—Newton, L. V.
——, formation of.—Dowling, D. B.; Potonié, H.; Stevenson, J. J.
——, geochemistry of.—Clarke, F. W.
——, microscopic structure of.—Schuster, J., 4; Lomax, J.
——, natural history of.—Arber, E. A. N., 2; Lomax, J., 2.
——, unusual conditions in occurrence of.—Hyde, J. E.
——. variations in composition of.—Barrois, C., 3.
——, vertical tree-trunks in.—Barrois, C.
——, volatile matter in.—Gény, P.
——, X-ray examination of.—Garrett, F. C.
Coal-dust.—Garforth, W. E.
Coal-Measures, Kent.—Strahan, A.
——, Lancashire.—Jackson, J. W., 1 & 4.
——, Nottinghamshire.—Lamplugh, G. W., 8.
——, Spain.—Douxami, H.
——. *See also* Carboniferous.
Coal-supply of Britain.—Watts, W. W., 2.
Coalfields, Alabama.—Evans, A. W.
——, Alaska.—Atwood, W. W.
——, Belgium.—Fourmarier, P., 1 & 9; Hind, W., 2; Rybák, M.
——, British Columbia.—Clapp, C. H.; Mallock, G. S.
——, Canada.—Craig, E. H. C., 2; Porter, J. B.
——, China.—Caldwell, G. S.; Read, T. T.
——, Donetz Basin.—Sokolov, D. V.
——, Forest of Dean.—Sibly, T. F., 2.
——, Germany.—Frech, F.; Köhne, W., 3.
——, Kent.—Arber, E. A. N., 6; Bolton, H.; *see also* KENT COAL CONCESSIONS.
——, Limburg.—Klein, W. C.
——, Midlands.—Bolton, H.; Horwood, A. R., 4; Vernon, R. D.
Coalfields, New Mexico.—Lee, W. T.
——, Nord.—Barrois, C., 5 & 6.
——, Otago (N.Z.).—Macdonald, A. G.
——, Pas-de-Calais.—Barrois, C., 2; Breton, L.; Gosselet, J. A. A., 6.
——, Silesia.—Gullachsen, B. C.; Michael, R.
——, Stirling.—Dron, R. W.
——, Wales (South).—Arber, E. A. N., 4; Strahan, A., 2.
——, Washington.—Evans, G. W.
——, West of England.—Arber, E. A. N., 4.
——, Yorkshire.—Arber, E. A. N., 3 & 5.
Coalinga Oilfield (California).—Dumble, E. T.
Coast-erosion, Cornwall.—Flett, J. S., 4; Stephens, F. J., 2.
—— ——, Liguria.—Issel, A., 2.
—— ——, Norfolk.—Bonney, T. G., 4.
—— ——, Yorkshire.—Sheppard, T.
Coast subsidence, German North Sea.—Gagel, C.
Coast-types.—Gregory, J. W., 7.
——, Atlantic & Pacific.—Schwarz, E. H. L., 4.
Coasts, European.—Braun, G.
——, Italy & Sardinia.—Issel, A., 2 & 3.
Cobalt District (Ontario).—Hore, R. E.
Coblenzian, Belgium.—Anthoine, R., 3.
Coccolithopora.—Arkhanghelski, A. D.
Coccoliths, Cretaceous.—Arkhanghelski, A. D.
Coccoloba.—Engelhardt, H.
Coccosteus.—Hussakof, L., 2.
Cochliodus.—Woodward, A. S., 5.
Cockerelliella.—Meunier, F., 3.
Cod, Cape (Mass.).—Davis, C. A.
Codokia.—Cossmann, M., 2; Toula, F., 2.
Cody (Wyoming).—Sinclair, W. J., 2.
Cœlacanthus.—Woodward, A. S., 7.
Cœlocentrus.—Richthofen, F. von.
Cœloceras.—Buckman, S. S.; Renz, C., 6.
Cœloclema.—Bassler, R. S.
Cœlopoceras.—Pervinquière, L.
Cœloptychium.—Schrammen, A.
Cœlorhynchus.—Woodward, A. S., 3.
Cœlostylina.—Dietz, E.
Cœlurus.—Lull, R. S., 2.
Cœnholectypus.—Hawkins, H. L., 1 & 6.
Cœnolestes.—Broom, R., 5.
Cœur d'Alène District (Idaho).—Hershey, O. H., 1 & 4.
Cogne (Aosta Valley).—Catani, R.
COKE, G. E., *Obit.—See* Gibson, W.
COLE, E. M., *Obit.—See* Sheppard, T., 2; *&* Watts, W. W.
Colemanite.—Eakle, A. S., 2; Hutchinson, A., 3.
Coleolus.—Kindle, E. M., 4.
Coleoptera, Miocene.—Wickham, H. F.
Coleraine District (Victoria).—Dunn, E. J., 2.
Colfontaine (Hainault).—Cornet, J., 3.

Colobodus.—Woodward, A. S., 7.
Coloceras.—Girty, G. H.
Cologne brown-coalfield (Rh.-Pruss.).—Fliegel, G.
Colombia.—Lehmann, E.; Olden, C.; Rudolph, E., 2; Schnäbele, E.
Colombo seismograph pillar.—Bamford, A. J.
Colorado (U.S.A.).—Atwood, W. W., 3 & 4; Butler, G. M.; Cockerell, T. D. A., 1 & 2; Campbell, M. R.; Girty, G. H., 2; Guiterman, F.; Hole, A. D.; Irving, J. D., 2; Johannsen, O. A.; Lakes, A.; Moore, C. J.; Mrazek, L.; Prosser, W. C.; Ransome, F. L.; Richardson, G. B.; Siebenthal, C. E.; Singewald, J. T. *fil.*, 4; Wickham, H. F.; Zimányi, K., 3.
Colorado R. (Ariz.).—Darton, N. H.
Colorado R. Basin.—Freeman, W. B.
Coloration in fossils.—Collot, L., 4; Girty, G. H., 3.
Colospongia.—Vinassa de Regny, P., 2.
Columbella.—Cerulli-Irelli, S., 2; Toula, F., 2.
Columbia R. Basin (U.S.A.).—Stevens, J. C.
Columbite.—Lacroix, A. F. A., 26.
Columbites Fauna.—Smith, J. P., 3.
Colutea.—Engelhardt, H.
COLVIN, S., *Obit.*—Shimek, B.
Colymbosaurus.—Bogholubov, N. N.
Combophyllum.—Richthofen, F. von.
Comendite.—Kôzu, S., 2.
Cominella.—Böse, E.
Comley (Shropshire).—Cobbold, E. S.
Commander I.—Zygmuntowska, W.
Commentry (Allier).—Meunier, F., 2 & 3.
Como Basin (French Congo).—Arsandaux, H., 2.
Compains (Puy-de-Dôme).—Glangeaud, P., 4.
Comptonia.—Fritel, P. H.
Comptonite.—Quensel, P. D.
Comstock (Tasmania).—Ward, L. K., 3.
Comstock Lode (Nevada).—Locke, A.
Conca (Rome).—Parona, C. F., 3.
Concepcion del Oro (Zacatecas).—Bergeat, A.
Conchodon Dolomite.—Rassmuss, H., 3.
Conchorhynchus.—Böhm, J., 3.
Conco (Venetia).—Fabiani, R., 2.
Concretions, Rhenish Prussia.—Brockmeier, H.
——, artificial carbonate of lime.—Léon, G.
——, colloidal.—Geinitz, E.
——, origin of.—Moore, E. S., 1 & 3.
'Cônes de déjections' Rhone Valley.—Horwitz, L.
Confervites.—Chapman, F., 11; Engelhardt, H., 2.
Congeria.—Halaváts, G. von; Lörenthey, I. von; Vitalis, S.
—— -*Melanopsis* Beds.—Toula, F., 3.
Conglomerate-dykes, Arizona.—Stewart, C. A.
Conglomerates, Carpathian Tertiary.—Popescu-Voitești, I., 5; Simionescu, I.
——, Rothliegendes.—Loziński, W. von, 2.
——, Rumania.—Mrazek, L., 2; Murgoci, G., 2.
——, Sardinia.—Pilotti, C., 3.
——, Witwatersrand.—Horwood, C. B., 2.
——, Triassic.—Lamplugh, G. W., 9.
Congo Belge.—Andrimont, R. d'., 2; Cornet, J., 5, 6, 7, & 8; Grosse, E.; Passau, G., 1-3; Robert, M., 1 & 2; Stutzer, O.
——, French.—Arsandaux, H., 1, 2, & 3.
Congress, International Geological, Stockholm, 1910.—Adan de Yarza, R., 2; Fermor, L. L., 2; Lóczy, L. de.
——, International Mining & Geological, Düsseldorf, 1910.—Sánchez Lozano, R.
Conifermyelon & *Coniferocaulon.*—Fliche, P.
Coniopteris.—Thomas, H. Hamshaw Seward, A. C., 2 & 3.
Conites.—Lignier, O.
Connecticut (U.S.A.).—Barrell, J., 2; Dale, T. N., 2; Eastman, C. R.; Loughlin, G. F.; Lull, R. S., 4; Rice, W. N.
Conocardium.—Gortani, M.
Conocephalina.—Walcott, C. D., 4.
Conocephalites.—Steinmann, J. H. C. G. G., 7.
Conoclypeus.—Popescu-Voitești, I.
Constance, Lake (Switzerland).—Schmidle, W.
Constantine (Algeria).—Joleaud, L.
Constellaria.—Bassler, R. S.
Contact-metamorphic ore-deposit.—Spurr, J. E., 2.
—— -metamorphism.—Barrow, G., 5; Baumgärtel, B.; Brauns, R., 2; Hatch, F. H., 5; Miller, W. J., 3; Peach, B. N., 4.
Contact Mining District (Nevada).—Schrader, F. C.
Continental platform, English Channel.—Hull, E., 2.
Continents, origin of.—Arldt, T.; Wegener, A.
Conularia.—Girty, G. H.; Glauert, L., 4; Laseron, C. F.; Leriche, M.
Conularida, Silurian.—Leriche, M.
Conulus.—Hawkins, H. L., 1 & 6.
Conus.—Böse, E.; Canavari, I.; Cerulli-Irelli, S.; Toula, F., 2
Converse County (Wyoming).—Sternberg, C. H., 2
Copiapite.—Manasse, E.
Copper-ores, Africa (German S.W.).—Dahms, P.
——, Alaska.—Moffit, F. H., 2.
——, Asia Minor.—Coulant, E.

Copper-ores, Bolivia.—Strauss, L. W.
——, Brazil.—Walther, Karl, 2.
——, British Columbia.—Le Roy, O. E.; *see also* British Columbia, Dep. Mines.
——, Cape of Good Hope.—Rose, J. G.
——, Chile.—Steinmann, J. H. G. G.; Sundt, L.
——, Falkland Is.—Crook, T., 4.
——, Gellivaare.—Granström, C. G.
——, Lake Superior Region.—Van Hise, C. R.
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——, Montana.—Weed, W. H.
——, New Zealand.—Bell, J. M., 2.
——, Ontario.—Lane, A. C.
——, Servia.—Wendeborn, B. A.
——, Siegen.—Bornhardt, W.
——, United States.—Butler, B. S.; Hayes, C. W., 2; Paige, S.
——, Ural Mts.—Friz, —.
——, Virgilina district.—Laney, F. B.
——, West Australia.—Montgomery, A.; Sleeman, H. R.
—— ——, mineral from.—Walther, P.
Copper-uranite.—Duerrfeld, V., 4.
Copper-veins, calcite gangue & secondary enrichment of.—Welsh, T. W. B.
—— ——, mineralization in.—Kirk, C. T.
Cora I. (Spitsbergen).—Lamplugh, G. W.
Coral-beds, Hamilton Shale.—Smith, Burnett.
—— -reefs, Palæozoic.—Yakovlev, N. N.
—— ——, Triassic.—Smith, J. P., 2.
—— ——, building of.—Howe, M. A.
—— ——, elevation of.—Wichmann, A.
Corallian, Kent borings.—Lamplugh, G. W., 9.
Coralliochama.—Böse, E., 2.
Coralliophaga.—Cossmann, M., 2.
Coralliophilia.—Toula, F., 2.
Corals.—*See* Anthozoa.
Corax.—Woodward, A. S., 3.
Corbicula.—Weaver, C. E., 2.
Corbis.—Böse, E., 3.
Corbula.—Johnson, D. W.; Toula, F., 2.
Cordaianthopsis.—Fliche, P.
Cordaianthus.—Vernon, R. D.
Cordaites.—Arber, E. A. N., 3, 4, & 7; Fliche, P.; Hardaker, W. H.; Seward, A. C., 4.
Cordierite.—Lacroix, A. F. A., 21.
——, pleochroic haloes in.—Hœvermann, G.
—— -rocks, Rhenish Prussia.—Brauns, R., 2 & 5.
Cordova (Spain).—Groth, J.
Coriaria.—Engelhardt, H.
Cork County (Ireland).—Johnson, T., 2.
Cornuspira.—Vadász, M. E., 2.
Cornwall.—Bowman, H. L.; Bryant, V. S.; Bullen, R. A.; Colenso, W.; Collins, J. H., 2 & 3; Dewey, H.; Flett, J. S., 4; Green, U.; Jennings, J.; Reid, C., 3; Russell, A.; Stephens, F. J., 1 & 2; Thomas, I.
Coro-Coro (Bolivia).—Strauss, L. W.
Coronation Exhibition, Shepherd's Bush.—Evans, J. W., 3.
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Coscinocyathus Limestone, Sardinia.—Pilotti, C., 4.
Coskinolina.—Schubert, R. J., 3.
Cosmoceras.—Papp, K. von.
Cosmoledo I. (Indian Ocean).—Fryer, J. C. F.
Costa Rica.—Alfaro, A.; Dall, W. H.; Michaud, G.; Pittier, H. F.; Romanes, J., 1 & 2; Sapper, K. T., 2; Tristán, J. F., 1, 2, 3, 4, & 5.
Côtes-du-Nord (Britanny).—Brun, P. de; Kerforne, F., 1 & 3.
Cotschna (Grisons).—Steinmann, J. H. C. G. G., 5.
Cotteswold Hills.—Buckman, S. S., 3.
Cottonwood Limestone, Kansas.—Yates, J. A.
Cotunnite.—Rossi, P.
Cotylosauria.—Huene, F. von., 2; Mehl, M. G.; Williston, S. W., 2.
Courland (Russia).—Montessus de Ballore, F. de, 9; Ryabinin, V.
Courrières (Nord).—Gény, P.
Couvin (Namur).—Fourmarier, P., 2.
Covelline.—Lazarevic, M., 2.
Covey Hill (New York).—Spencer, J. W. W.
Cowie (Kincardineshire).—Traquair, R. H., 4.
Coyoacán Quarry (Mexico).—Wittich, E.
Cracow (Galicia).—Klebelsberg, R. von., 6; Loziński, W. von; Wiśniowsk, T.; Wójcik, K.
Craigeven Bay (Kincardineshire).—Campbell, R., 3.
Cranæna.—Kindle, E. M., 4.
Craspedites.—Burckhardt, C.
Crassatella.—Oppenheim, P.
Crassatellites.—Brown, A. P., 2; Weaver, C. E., 2.
Cratægus.—Berry, E. W., 5.
Craterosaurus.—Nopcsa, F., 2.

Craticularia.—Kolb, R.; Schrammen, A.
Craven (Yorkshire).—Wilmore, A.
Crawford County (Illinois).—Blatchley, R. S., 2.
Creazzo (Venetia).—Kranz, W., 3.
Creechbarrow (Dorset).—Bloomfield, A. H.; Keeping, H.
Crematopteris.—Fliche, P.
Creosaurus.—Lull, R. S., 2.
Crepidula.—Toula, F., 2.
Crepipora.—Bassler, R. S.
Creseis.—Kört, W.
Cretaceous, Alaska.—Atwood, W. W.; Martin, G. C.
——, Algeria.—Joleaud, L.
——, Arabia.—Stefano, Giov. di., 2.
——, Austria. — Ampferer, O.; Klinghardt, F.; Toula, F., 4.
——, Bavarian Alps.—Lebling, C., 1 & 2.
——, Bernese Alps.—Seeber, H.
——, Brunswick.—Höhne, E.
——, Caucasus.—Papp, K. von; Ryabinin, A. N., 3.
——, Dakota.—Todd, J. E.
——, Ferghana.—Mushketov, D. I.
——, German East Africa.—Böhm, J., 4; Krenkel, E.
——, Greece.—Frech, F., 2; Négris, P., 2.
——, Hanover.—Harbort, E.
——, Heligoland.—Wolff, W.
——, Holland.—Uhlenbroek, G. D.
——, Hungary.—Noszky, E.
——, Italy.—Sacco, F., 2; Taramelli, T.
——, Kansas.—Moodie, R. L., 5; Sternberg, C. H.
——, Kent.—Lamplugh, G. W., 9.
——, Mangishlak Peninsula.—Natzkagh, A. D.
——, Maryland, Berry, E. W., 1 & 3; Clark, W. B., 1 & 2; Miller, B. L., 2.
——, Mexico.—Böse, E., 3; Burckhardt, C.
——, Moravia.—Beck, H.
——, Mozambique.—Holmes, A., 2.
——, New Jersey.—Stevens, N. E.
——, New Mexico.—Brown, B.; Herrick, C. L., 2; Johnson, D. W.; Lee, W. T.
——, New Zealand.—Böhm, G.; Park, J., 3.
——, Nord.—Gosselet, J. A. A., 7.
——, Palermo.—Silvestri, A., 2.
——, Pas de Calais.—Lavocat, P.
——, Patagonia.—Stolley, E., 2.
——, Peru.—Schlagintweit, O.
——, Rumania.—Macovei, G.
——, Russia. — Arkhanghelski, A. D.; Krasowskiĭ, A.; Vasilievskiĭ, M. M., 2.
——, Santander.—Mengaud, L.
——, Spitsbergen.—Stolley, E., 3.
——, Sweden.—Grönwall, K. A., 2; Kilian, C. C. W., 5.
——, Teutoburg Forest.—Burre, O.
——, Tunis.—Roux, H.
Cretaceous, Uri.—Staub, W.
——, Venetia.—Dainelli, G.
——, Vorarlberg.—Mylius, H.
——, Wyoming.—Sternberg, C. H., 2.
Cretaceous boulder, Caithness.—Tait, D.
—— coal, New Zealand.—Macdonald, A. G.
—— flints, Sweden.—Wiman, C., 2.
—— floras.—Berry, E. W., 2.
—— (Lower), marine provinces of.—Uhlig, V. K., 2.
——. *See also* Emscherian, *&c.*
Cretaceo-Tertiary, New Zealand.—Marshall, P.; Park, J., 2 & 3; Thomson, J. A., 3.
Cretaceous-Tertiary contact, California.—Dumble, E. T.
Crete.—Bate, D. M. A.
Cribrilina.—Canu, F.
Cribrosphæra.—Arkhanghelski, A. D.
Criccieth (Carnarvonshire).—Fearnsides, W. G.
Cricetomys.—Bate, D. M. A.
Crich Inlier (Derbyshire).—Sargent, H. C., 1 & 2.
Cricket Range (Utah).—Burling, L. D.
Crimea.—Andrusov, N. I., 3; Arshinov, V. V.; Popov, S. P., 1 & 2; Zaitsev, A. M.
Crinoidea, Carboniferous.—Bather, F. A., 5 & 6; Wright, J. *fil.*
——, Cretaceous.—Clark, A. H.
——, Devonian.—Richthofen, F. von.
——, Permian.—Wanner, J.
Crioceras.—Krenkel, E.; Stolley, E., 3.
Crisposcala.—Boury, E. de.
Cristellaria.—Canavari, I.; Fornasini, C.; Franke, A.; Vadász, M. E., 2.
Croatia.—Gavazzi, A.; Kispatić, M., 1 & 2; Kormos, T., 12; Poljak, J., 1 & 2; Reizer, N.; Salopek, M.; Terzaghi, K.
Crocodilia.—Rovereto, C.; *see also* Reptilia.
Croft Quarry (Leicestershire).—Bosworth, T. O., 4.
Croisic (Loire-Inférieure).—Welsch, J., 2.
Cromus.—Chapman, F.
Cromyocrinus.—Wright, J. *fil.*
Crossopodia.—Delgado, J. F. N.
Croxley (Herts).—Kidner, H.
Crush-zones, Rhätikon.—Mylius, H., 3.
Crustacea. *See* Trilobita, Cirripedia, &c.
Cruziana.—Fearnsides, W. G.
Cryolite.—Baldauf, R.; Böggild, O. B.
——, twinning of.—Wallerant, F. F. A., 2.
Cryphæus.—Kindle, E. M., 4.
Cryptangia.—Filliozat, M., 2.
Cryptocœlia.—Vinassa de Regny, P., 2.
Cryptomya.—Weaver, C. E., 2.
Cryptospira.—Cerulli-Irelli, S., 2.
Cryptovenia.—Bolton, H.
Cryptozoon.—Walcott, C. D., 4.

Crystal-measurement.—Tutton, A. E. H., 2; Werenskiöld, W.
Crystalline rocks, origin of foliated.—Trueman, J. D.
—— schists, Caucasus.—Schafarzik, F.
Crystallization.—Ritzel, A., 2.
——, order of.—Bowen, N. L., 3.
Crystallochemical analysis.—Barker, T. V., 3; Fedorow, E. von.
Crystallographic kaleidoscope.—Wuelfing, E. A.
—— models.—Besborodko N.; Bœke, H. E., 4; Bowman, H. L., 2.
—— tables.—Bowles, O.; Wherry, E. T., 5; Whitlock, H. P., 2.
Crystallography.—Baumhauer, H.
——, chemical.—Barker, T. V.; Moir, J., 3; Tutton, A. E. H.
——, geometrical.—Sommerfeldt, E.
——, nomenclature in.—Rinne, F., 4; Saurel, P.
——, text-book.—Tutton, A. E. H., 2.
Crystals, co-ordination and.—Barker, T. V.
——, determination of extinction-angles in.—Smith, H. G., 2.
——, force of growing.—Andrée, K., 2.
——, Haüy's law.—Viola, C.
——, heat-conductivity of.—Clark, R. W.
——, heating of.—Himmelbauer, A.; Marc, R., 2.
——, luminescence in.—Pochettino, A.
——, optical properties of.—Kæmmerer, P.; Scouvart, A.; Wright, F. E., 2.
——, physical properties of.—Ritzel, A.; Wallerant, F. F. A., 3.
——, polarization of liquid.—Gaubert, P., 2.
——, polychroism of artificially coloured.—Lacroix, A. F. A., 13.
——, projection of drawings of.—Viola, C., 3.
——, refraction in sections of.—Viola, C., 2.
——, structure of.—Beckenkamp, J.; Bowman, H. L., 2; Kreutz, S.; Sommerfeldt, E., 2 & 3; Tertsch, H.
——, twinning of.—Becke, F. J. K., 3; Evans, J. W., 2.
——, variation with temperature of.—Beckenkamp, J., 2; Goldschmidt, V. M., 4.
——. *See also* Refraction, *&c.*
Ctenodonta.—Herrmann, F., 3; Leriche, M.
Ctenodus.—Priem, F.
Ctenopsis.—Berry, E. W.
Ctenopyge.—Holtedahl, O.
Cuba.—Cox, J. S., *fil.*; Cumings, W. L.; Hayes, C. W.; Leith, C. K., 3; Little, J. E.; Spencer, A. C.; Woodbridge, D. E.
Cuccoceras.—Arthaber, G. von, 2.
Cucco Mt. (Carnic Alps).—Arthaber, G. von, 2.
Cucq (Pas-de-Calais).—Pagniez, —, 2.
Cucullæa.—Krenkel, E.; Leriche, M.
Cuka-Dulkan (Servia).—Lazarevic, M., 2.
Culebra Cut (Panama).—MacDonald, D. F.
Cuma.—Weaver, C. E., 2.
Cumberland.—Smith, Bernard, 2.
Cummingtonite, Mysore.—Smeeth, W. F., 2.
Cunonia.—Engelhardt, H.
Cupania.—Engelhardt, H., 2.
Cupressinoxylon.—Berry, E. W.; Viguier, R.
Cupressites.—Tuzson, J.
Cupressocrinus.—Richthofen, F. von.
Cuprite.—Röntgen, W. C.
Cuprodescloizite.—Schaller, W. T., 7.
Curculoides.—Pocock, R. I.
Cuyana Range (Minn.).—Adams, F. S.
Cuzco (Peru).—Bingham, H.; Bowman, I., 1 & 2; Eaton, G. F., 2.
Cyathophora.—Papp, K. von.
Cyathophyllum. — Chapman, F., 7; Garwood, E. J.; Grosch, P., 2; Richthofen, F. von.
Cyathoseris.—Oppenheim, P.
Cycadeoidea.—Berry, E. W.; Miller, B. L., 2; Thomas, H. Hamshaw; Wieland, G. R.
Cycadeospermum.—Berry, E. W.
Cycadocephalus.—Nathorst, A. G., 4.
Cyclades I.—Cayeux, L., 2.
Cyclammina.—Noth, R.
Cyclanorbis.—Dacqué, E., 2.
Cycloceras.—Chapman, F., 11.
Cyclonassa.—Cerulli-Irelli, S., 2.
Cyclonautilus.—Hind, W.
Cyclophthalmus.—Pocock, R. I.
Cyclostigma.—Cambier, R., 2; Schrammen, A.
Cyclotrema.—Kaldhol, H.
Cyclostrema & *Cylichna.*—Toula, F., 2.
Cylindrophyma.—Kolb, R.
Cymbalopora.—Vadász, M. E., 2.
Cynodont skull, structure of.—Broom, R., 3.
Cynognathus.—Broom, R., 3; Watson, D. M. S.
Cypellia.—Kolb, R.
Cyperacites.—Berry, E. W.
Cyperites.—Engelhardt, H.; Fritel, P. H.
Cyphaspis. — Herrmann, F., 1 & 3; Kindle, E. M., 4.
Cypræa. — Cerulli-Irelli, S., 2; Chapman, F., 2.
Cyprædia.—Martin, K.
Cypricardinia. — Gortani, M.; Herrmann, F., 3; Kindle, E. M., 4.
Cypridina.—Pruvost, P.
Cyprimeria.—Johnson, D. W.
Cyprina.—Cossmann, M., 2.
Cyrena.—Clark, W. B.; Cossmann, M., 2; Richthofen, F. von.
Cyrenaica (N. Afr.).—Vinassa de Regny, P., 6.

Cyrtina.—Gortani, M.; Kindle, E. M., 4.
Cyrtoceras.—Born, A.; Crépin, A.; Girty, G. H.; Gortani, M.; Grosch, P., 2; Richthofen, F. von.
Cystiphyllum.—Kindle, E. M., 4.
Cystispongia.—Schrammen, A.
Cystoseirites.—Fliche, P.
Cytherea.—Böse, E., 3; Kinkelin, F.; Toula, F., 2.
Czekanowskia.—Krishtofovich, A. N.; Seward, A. C., 2 & 7; Thomas, H. Hamshaw.
Czenstochowa (Poland).—Koroniewicz, P.
Czuchow boring (Upper Silesia). — Michael, R., 2.

Dacite, Caucasus. — Schafarzik, F.; Timofeev, K. I., 3.
——, Dutch East Indies.—Rack, G.
——, Pyrenees.—Lapparent, J. de.
——, Victoria.—Skeats, E. W.
Dacosaurus.—Sauvage, H. E., 2.
Dactylioceras.—Buckman, S. S.
Dadoxylon.—Gothan, W.; Halle, T. G.
Dahllite.—Rogers, A. F., 3.
Dakota (U.S.A.).—Campbell, M. R.; Darton, N. H., 3; Shimek, B., 2; Stone, R. W.; Todd, J. E., 3.
Dakota Formation, age of.—Todd, J. E.
Dakyns, J. R., *Obit.*—*See* Lamplugh, G. W., 4.
Dalecarlia (Sweden).—Adan de Yarza, R., 2.
Dalbergia.—Engelhardt, H.
Dalby (Queensland).—Cameron, W. E., 2.
Dalium.—Böse, E.
Dalmatia.—Bukowski, G. von; Gavazzi, A.; Götzinger, G.; Kerner, F. von, 1 & 4; Schubert, R. J.; Tućan, F.; Vetters, H.
Dalmanella.—Kindle, E. M., 4.; Reed, F. R. C., 4; Richthofen, F. von.
Dalmanites.—Gortani, M.; Herrmann, F., 3; Kindle, E. M., 4; Steinmann, J. H. C. G. G., 7.
Dalradian volcanic action.—Mackie, W., 2.
Dam-trenches.—Lapworth, H.
Damaraland (S.W. Afr.).—Gürich, G.
Dammara.—Krishtofovich, A. N., 4.
Danæopsis.—Fliche, P.
Danburite.—Goldschmidt, V., 3; Ungemach, H.
Danube R.—Antipa, G.; Haag, F., 2; Kormos, T., 10; Reck, H.
——, age of valley-deposits of.—Reck, H., 2.
Danubites.—Richthofen, F. von.
Daphne & *Daphnogene.* — Engelhardt, H.
Daphnella.—Cerulli-Irelli, S.
Daralagöz (Transcaucasia). — Bonnet, P., 2.
Dardanelles.—Andrusov, N., I.
Darmstadt (Hesse).—Klemm, G., 4.
Dartford Heath (Kent).—Chandler, R., H., 2.
Darwin, C.—*See* Seward, A. C., 6.
Dasmia.—Oppenheim, P.
Datolite.—Chervinskiĭ, P. N.; Görgey, R., 4; Orlov, N. A.; Popov, S. P.; Wittich, E., 4.
Dauphiné (France).—Gignoux, M., 2; Kilian, C. C. W., 7; Pussenot, C.
Dawson arkose.—Richardson, G. B.
Daylesford (Victoria).—Dunn, E. J., 12 & 13.
Dean, Forest of (Gloucester).—Arber, E. A. N., 4 & 7.; Sibly, T. F., 2.
Decapoda, Cretaceous.—Reed, F. R. C.
Deeside (Scotland).—Barrow, G., 3 & 4.
Dee Valley (N. Wales), post-Glacial changes in.—Wills, L. J.
Deformation of rocks.—Sander, B., 5.
—— of salt-deposits.—Andrée, K., 6; Lachmann, R., 2, 3, & 4.
Defrenoysite.—Solly, R. H.
'Degenerescence.'—Larger, R.
Dekayella.—Bassler, R. S.
Delos (Cyclades).—Cayeux, L., 2.
Delta-deposits.—Barrell, J.; Branson, E. B.; Grabau, A. W.
Deltodus.—Woodward, A. S., 5.
Demin, A. A., *Obit.*—*See* Gherasimov, A. P.
Denbighshire.—Wills, L. J.
Denckmannia.—Wedekind, R.
Dender Valley (Belgium).—Cornet, J., 4.
Dendrophyllia.—Filliozat, M., 2.
Denmark.—Hartz, N., 1 & 2; Nielson, K. B.; Nörregaard, E. M.; Nordmann, V., 2.
Densberg (Kellerwald).—Assmann, P.
Dentalina.—Vadász, M. E., 2.
Dentalium. — Böse, E.; Cerulli-Irelli, S.; Girty, G. H.; Toula, F., 2; Weaver, C. E., 2.
Dentex.—Stefano, Gius. de, 3.
Denudation.—Spethmann, H., 3.
——, Egyptian desert.—Walther, J. K., 5.
Deplanation.—Cairnes, D. D., 2.
Derbyia.—Richthofen, F. von.
Derbyshire.—Arber, E. A. N., 3; Russell, A., 3; Sargent, H. C., 2.
Dermaptera, Oligocene.—Burr, M.
Deroceras.—Buckman, S. S.; Rassmuss, H., 3.
Deserts, North America.—Macdougal, D. T.
Desert conditions.—Walther, J. K., 5.
—— -phenomena in Spitsbergen.—Högbom, B., 2.
—— water, Western Australia.—Maclaren, J. M.
Desmiophyllum.—Halle, T. G.; Seward, A. C., 3.
Desmoceras. — Joleaud, L.; Krenkel, E.
Detritus, Spitsbergen.—Meinardus, W., 1 & 2.
Deûle R. (Flanders).—Dubois, G.
Déva (Hungary).—Zimányi, K., 2.
Devillian.—Malaise, C. H. G. L., 3.

Devon.—Brydone, R. M., 2; Collins, J. H., 3; Evans, J. W., 6; Hunt, A. R., 2; Parkyn, E. A.; Reid, C., 3; Woodward, H. B., 4.
Devonian, Alleghany region.—Kindle, E. M., 4.
——, Ardennes.—Dorlodot, H. de, 4; Fourmarier, P., 3 & 5.
——, Asia (Central).—Vadász, M. E.
——, Asia Minor.—Leidhold, C.
——, Belgium.—Asselbergs, E., 2; Fourmarier, P., 2 & 4.
——, Bolivia.—Steinmann, J. H. C. G. G., 7.
——, Carnic Alps.—Gortani, M.
——, China.—Richthofen, F. von.
—— Cornwall.—Flett, J. S., 4; Green, U.; Reid, C., 3; Thomas, I.
——, Devon.—Evans, J. W., 6; Reid, C., 3.
——, Falkland Is.—Halle, T. G.
——, France.—Carpentier, A., 3; Collin, L.; Gosselet, J. A. A., 10; Vélain, C.
——, Germany.—Assmann, P.; Born, A.; Herrmann, F., 1 & 3.
——, Indo-China.—Deprat, J.; Mansuy, H.
——, Kentucky.—Kindle, E. M., 2.
——, Kincardineshire.—Campbell, R., 4.
——, Luxemburg.—Asselbergs, E.; Dorlodot, H. de, 2; Fourmarier, P., 6.
——, Moravia.—Rzehak, A., 2.
——, New York.—Luther, D. D.
——, Norway.—Bjœrlykke, J. O.; Reusch, H. H.
——, Ohio.—Kindle, E. M., 3.
——, Ontario.—Stauffer, C. R., 2.
——, Poland.—Siemiradzki, J.
——, Quebec.—Hussakof, L., 2.
——, Russia.—Charnotzkii, Y. A.; Vasilievskii, N. I.
——, Spain.—Grosch, P., 2; Groth, G., 2.
——, Victoria.—Chapman, F., 7, 8, & 10.
——, Vosges.—Lévy, Alb. M., 2.
—— climatic zones.—Matthew, G. F., 2.
—— iron-ores.—Singewald, J. T., *fil.*, 2.
—— system, lower limit of.—Dorlodot, H. de, 3.
—— -Silurian boundary, Ardennes.—Leriche, M., 4.
Devono-Waverlyan in Ohio, &c.—Ulrich, E. O.
Dew-ponds.—Gibson, H.; Martin, E. A.; Pope, A.
Diabase.—Backlund, H.; Butz, J.; Geijer, P., 3; Hammer, W., 2; McDonald, D. P.; Reid, C., 3; Souza-Brandão, V., 2.
——, 'sun-crack' structure in.—Wherry, E. T.
Diablo Mt. (California).—Clark, B. L.
Diadectes.—Case, E. C., 5.
Diæleurodon.—Broom, R., 4.
Diagonal stratification.—Toula, F., 3.
Diallage-amphibolite.—Grengg, R.
Diamantiferous nodule.—Corstorphine, G. S.
—— rocks.—Hatch, F. H., 4; Wagner, P. A.
Diamonds.—Camsell, C., 4; Fersmann, A. E. von, 3; Kaiser, E., 2; Röntgen, W. C.; Vialay, A.; Wagner, P. A.
——, behaviour in high temperatures of.—Dölter, C., 2.
——, genesis of.—Derby, O. A.
Dianulites.—Bassler, R. S.; Vinassa de Regny, P., 4.
Diasparactus.—Case, E. C.
Diatomaceous ooze.—Philippi, E.
Diatomaceous earth.—Bailey, L. W.; Mahony, D. J.
—— rocks, Bohemia.—Kafka, J.
Diatrypella.—Vinassa de Regny, P., 4.
Dicellocephalus.—Walcott, C. D., 4.
Diceras.—Parona, C. F.
Diceratherium.—Abel, O.; Peterson, O. A., 2.
Dicerocardium.—Stefano, Giov. di.
Dichograptus.—Hall, T. S.
Dichotozamites.—Berry, E. W.
DICKINSON, J., *Obit.*—*See* ANON., 6; *&* Harrison, G. B.
Dicksoniopsis.—Berry, E. W.
Dicœlites.—Böhm, G., 2.
Dictyaræa.—Oppenheim, P.
Dictyocalamites.—Arber, E. A. N., 6.
Dictyocaninæ.—Schubert, R. J., 3.
Dictyodora, distribution of.—Hundt, R., 2.
Dictyonema.—Hahn, F. F., 2; Steinmann, J. H. C. G. G., 7.
—— Shales, Herefordshire.—Cox, A. H.
Dictyophyllum.—Thomas, H. Hamshaw.
Dicynodon.—Broom, R., 6; Watson, D. M. S.
Dicynodont skull, structure of.—Broom, R., 18.
Didacna.—Andrusov, N. I., 2.
Die (Drôme).—Martin, D., 2.
Dielasma.—Gortani, M.; Nechaev, A. V.
Differential cementing & oil-prospecting.—Johnson, R. H., 2.
Digne (Basses Alpes).—Martin, D., 2.
Dill R. (Germany).—Ahlburg, J.
Dillenburg (Hesse).—Meyer, H. L. F.
Dillon (Montana).—Bastin, E. S.
'Diluvialkohle.'—Hess von Wichdorff, H., 3.
Diluvium, Galicia.—Lozinski, W. R. v.
——, Germany.—Bärtling, R., 2; Gagel, C., 3; Höhne, E.; Kranz, W., 3; Krause, P. G., 2; Leppla, A.; Olbricht, K.; Stoller, J.; Wolff, W., 2.
——, Poland.—Koroniewicz, P.
——, Rügen.—Schulte, L.
——, Switzerland.—Mueller, F. C., 2.
——. *See also* Quaternary, &c.
Dimeroceras.—Born, A.

Dimetian, Pembrokeshire. — Thomas, Herbert H.

Dimetrodon.—Case, E. C., 3; Watson, D. M. S.

Dimorphoceras.—Girty, G. H.

Dinant (Belgium).—Fourmarier, P., 4.

Dinantian, Annam.—Deprat, J.

Dinara (Dalmatia).—Götzinger, G.

Dinarites.—Arthaber, G. von, 2.

'Dingle-bed' rocks, County Kerry. — McHenry, A.

Dinkelberg (Baden).—Bubnoff, S. von, 2.

Dinosauria.—Broom, R., 8.

——, Cretaceous.—Bogholubov, N. N., 4; Brown, B.; Lambe, L. M.; Lull, R. S., 5; Moodie, R. L., 3; Nopcsa, F., 2; Sternberg, C. H., 2.

——, Jurassic.—Holland, W. J.; Nopcsa, F., 1 & 2.

——, Karroo.—Anderson, W.

——, Wealden. — Hooley, R. W., 1 & 2.

——. *See also* Reptilia.

Dinosaur-turtle analogy.—Wieland, G. R., 2.

Dinotherium.—Andrews, C. W.; Stefanescu, G.

Dinton (Wiltshire).—Ord, T.

Diochotichus.—True, F. W.

Dionide.—Reed, F. R. C., 2.

Dioonites.—Berry, E. W.

Diorite, Caucasus.—Schafarzik, F.

——, Channel Is.—Bonney, T. G., 5.

——, Gastene Massif.—Truninger, E.

——, Gömör.—Junghann, H.

——, Patagonia.—Quensel, P. D.

——, Pembrokeshire. — Thomas, Herbert H.

——, Scotland.—Barrow, G., 5.

Diospyros.—Engelhardt, H.

Diotis.—Haas, O.

Dip, graphic method for determining.—Hewett, D. F.

Diphyphyllum.—Garwood, E. J.

Diploconus.—Rassmuss, H., 3.

Diplocynodon.—Kinkelin, F.

Diplodocus.—Drevermann, F., 3.

Diplodonta.—Cossmann, M., 1 & 2

Diplograptus.—Steinmann, J. H. C. G. G., 7; Törnquist, S. L., 2.

Diplopodia.—Böse, E., 3.

Diplopora.—Fliche, P.; Pia, J. von; Tommasi, A.

Diplotrypa.—Bassler, R. S.

Diprotodon.—Glauert, L.

Diptera, Miocene.—Meunier, F.

Dipterus.—Eastman, C. R.

Discina.—Assmann, P.; Böhm, G.

Discispongia.—Kolb, R.

Discoceras.—Richthofen, F. von.

Discoflustrellaria.—Brydone, R. M.

Discohelix.—Haas, O.

Discoidea.—Hawkins, H. L., 1 & 6.

Discorbina.—Schmidle, W.; Vadász, M. E., 2

Discors.—Cossmann, M., 2.

Discosaurus.—Ryabinin, A. N.

Discosorus.—Lee, G. W., 2.

Discosphæra.—Arkhanghelski, A. D.

Dislocation.—*See* Faulting.

Distefanella.—Parona, C. F., 2.

Disthene.—*See* Kyanite.

Ditrò (Transylvania).—Reinhard, M., 3.

Ditrupa.—Stoliey, E., 3.

Dittopora.—Bassler, R. S.

Divaricella.—Cossmann, M., 2.

Divining-rod, quest of ore and the.—Reusch, H. H., 2.

Djambi.—*See* Jambi.

Dobreşti-Caciulateşti (Rumania).—Protopopescu-Pake, E. I., 2.

Dobrudscha (Rumania). — Cădere, D. M.; Cantuniari, S.; Macovei, G.; Pascu, R.; Protopopescu-Pake, E. I.; Rotman, D.; Simionescu, I., 2.

Dodonæa.—Engelhardt, H.

Döhlen Basin (Saxony).—Hausse, R.

Dog Holes (Lancashire). — Jackson, J. W., 2 & 3.

Dogger, Vorarlberg.—Mylius, H.

Dogger Bank, shelly clay from.—Stather, J. W., 2.

Dognácska (Hungary).—Zimanyi, K.

Dokáchi (Bengal).—Clarke, H. E.

Dolerite, Merionethshire.—Lake, P.

——, New South Wales.—Benson, W. N.

——, Rhodesia.—Mennell, F. P.

——, Scotland.—Tyrrell, G. W.

——, Western Australia.—Thomson, J. A., 4.

——, Witwatersrand.—McDonald, D. P.

—— contact of sandstone with.—Hatch, F. H., 5.

—— dykes, Cornwall.—Flett, J. S., 4.

Dolgelly (Merionethshire).—Lake, P.

Doliolina.—Schellwien, E.

Doliostrobus.—Fritel, P. H.

Dolium.—Toula, F., 2.

Dollfus, G. F., publications of.—*See* Dollfus, G. F., 6.

Dolomite.—Delgrosso, M.; Vialay, A.; Paulke, W.; Fischer, H.; Grupe, O., 2; Haag, F.

Dolomite barytes-veins in.—Hess von Wichdorff, H., 2.

Dolomite Alps (S.E. Tyrol).—Klebelsberg, R. von, 2.

Dolores Mine (Mexico).—Spurr, J. E., 2.

Dom (Morocco).—Gin, G.

Dome-theory of oil-accumulation.—Harris, G. D., 3; Lucas, A. F.

Domerian, Lombardy.—Rassmuss, H., 3.

Domodossola (Piedmont).—Craveri, M.

Domas-novas (Sardinia).—Pilotti, C., 3.

Don Cossacks, Prov. of (Russia).—Kler, M. O.

Don R. District (Russia).—Chervinskii, P. N., 2.

Donegal (Ireland).—Wright, W. B., 1–4.

Donetz Basin (Russia).—Lebedev, N. Sokolov, D. V.

Dopplerite.—Potonié, H., 2.
Dore, Mt. (Madagascar).—Lacroix, A. F. A., 28.
Dorndürkheim (Rhein-Hesse). — Wittich, E., 7.
Dorset.—Bloomfield, A. H.; Hull, E., 2; Keeping, H.; Pope, A.; Woodward, A. S., 6; Woodward, H. B., 4.
Dosinia.—Böse, E.
Doubs (France).—Collot, L.
Doubs R.—Buxtorf, A., 2.
Dover (Kent).—Lamplugh, G. W., 9.
Dovercourt (Essex).—Underwood, W.
Down, Co. (Ireland).—Home, H.
Downtonian, Kincardineshire. — Campbell, R., 1 & 4.
Dowser's rod, water and.—Wertheimer, J.
Draguignan (Var).—Bertrand, L., 2 & 4; Haug, É., 2 & 3; Lanquine, A.
Dreikanter.—Grabham, G. W.; Post, L. von; Protopopescu-Pake, E. I.; Walther, J. K., 2.
Dreissensia.—Halaváts, G. von; Lörenthey, I von; Sintzov, I. T., 2.
Dreissensiomya. — Halaváts, G. von; Lörenthey, I. von.
Dresden (Saxony).—Hausse, R.
Drift, Cumberland.—Smith, Bernard, 2.
——, Essex.—Warren, S. H.
——, Hertfordshire.—Hill, W., 3.
——, Iowa.—Calvin, S.
——, Irish Sea & Welsh.—Wills, L. J.
——, Missouri River.—Keyes, C. R., 5.
——, land-ice & glacial.—Crook, T.; Deeley, R. M., 2; Lamplugh, G. W., 2; *see also* Glacial deposits, *&c.*
Drillia.—Cerulli-Irelli, S.; Toula, F., 2; Weaver, C. E., 2.
Drôme (France).—Kilian, C. C. W., 11; Lamothe, — de.
Drumlins, Donegal.—Wright, W. B., 2.
——, Mecklenburg.—Geinitz, E.
Drusy minerals in basanite.—Hibsch, J. E., 2.
Dryandra.—Engelhardt, H.; Kafka, J.
Dryandroides & *Dryophyllum.*—Fritel, P. H.
Dryosaurus.—Lull, R. S., 2.
Dublin Co. (Ireland).—Maberly, F. H.
Dulce R. (Argentina).—Carlés, E. de.
Dullstroom (Transvaal). — Hall, A. L., 2.
Dumbleton (Gloucestershire). — Woodward, A. S., 2.
Dumortieria.—Rassmuss, H., 3.
Dumortierite. — Friedel, G., 2; Hlawatsch, C., 2.
Dun Mt. (Nelson).—Bell, J. M., 2.
Dundasite.—Russell, A., 3.
Dundee (Forfarshire).—Craig, R. M., 3.
Dundry (Somerset).—Reynolds, S. H.
Dunedin (N.Z.).—Bartrum, J. A.
Dunes, Asia.—Ivchenko, A. Th.
——, Basutoland.—Stanley, G. H.
——, Europe.—Braun, G.
——, Lüneburg.—Wahnschaffe, F.
Dunes, Pomerania.—Keilhack, L. H. K., 2.
——, Vendée.—Welsch, J., 3.
——, Venetia.—Toni, A. de.
Dunolly (Victoria).—Hall, T. S.
DUPONT, É. D., *Obit.*—*See* Watts, W.W.
Dura Den (Fifeshire).—Woodward, A. S., 8.
Durance Valley (France).—Martin, D., 3.
Durania.—Parona, C. F., 2-4.
Durham Mine (Pennsylvania).—Bayley, W. S.
Dust, atmospheric.—Dimo, N.; Savarenskiĭ, F. P.; Sudry, L., 2.
——, ——, glaciers and.—Vallot, J., 2.
——, red-rain.—Steel, T., 2.
—— (siliceous), steppes.—Tumin, G. M., 2.
Dutch East Indies.—Abendanon, E. C.; Bijdendijk, J. G.; Böhm, G., 2; Douvillé, H., 2; Pannekoek van Rheden, J. J.; Sarasin, P., 2; *see also* DUTCH EAST INDIES, Molucca Is., Sunda Is. *&c.*
Dwarsberg (Transvaal). — Humphrey, W. A., 1 & 3.
Dwyka Conglomerate, Congo.—Grosse, E.; Stutzer, O.
Dyke-rocks, Pembrokeshire. — Thomas Herbert H.
Dykes, Aberdeen.—Mackie, W., 3.
——, Arizona conglomerate.—Stewart, C. A.
——, Bendigo.—Stillwell, F. L.
——, Channel Is.—Bonney, T. G., 5.
——, Cornwall.—Flett, J. S., 4.
——, Falkland Is.—Halle, T. G.
——, Nevada.—Ransome, F. L., 2.
——, North of England.—Heslop, M. K., 1 & 2.
——, Witwatersrand.—Olver, J. S.
——, in Waterburg System.—Wagner, P. A., 2.
——, rock genesis and basic.—Menneil, F. P.
Dyrosaurus.—Thevenin, A.
Dysanalyte, optical properties of.—Söllner, J.
Dyscritella.—Lee, G. W.
Dzungaria.—*See* Soungaria.

Earth, age of the.—Holmes, A.; Königsberger, J.; Pruvost, P., 2.
——, analogies between Mars and.—Cortese, E.
——, changes of poles of.—Kimuru, H.; Spitaler, R.
——, crust of the.—Berget, A.; Fersmann, A. E. von, 2; Helmert, F. R.; Königsberger, J., 2; Oddone, E.; Sacco, F., 3; Schwarz, E. H. L., 5; Wegener, A.
—— ——, gas, etc., in.—Vernadskiĭ, V. I., 1 & 2.
—— ——, zone of flow in.—Adams, F. D.

Earth, electric waves & interior of.—Königsberger, J., 6.
——, future habitability of.—Chamberlin, T. C.
——, interior of the.—Löwy, H.
—— ——, limiting strength of rock in.—King, L. V.
——, origin & structure of the.—Gregory, J. W., 8.
——, physics of the.—Rudzki, M. P.
——, radium & the.—Bulman, G. W.
——, shrinkage of the.—Birrell, H.; Stratton, F. J. M.; Stromeyer, C. E.
——, temperature variations & external dynamics of.—Stainier, X.
——, tides and.—Darwin, G. H.
—— -movements.—Burbank, J. E.; Hugi, E., 2.
—— ——, fiords and.—Gregory, J. W., 2.
—— ——, post-Jurassic.—Schwarz, E. H. L., 3.
—— ——, Germany (S.W.).—Reck, H. 3.
Earthquakes.—Davison, C., 3; Milne, J., 2; Montessus de Ballore, F. de, 4; Norris, F. E., 2; Rudzki, M. P.; Shaw, J. J.; Sidgreaves, W., 2; Vialay, A.
——, Alaska.—Reid, H. F., 3; Tarr, R. S., 2.
——, Argentina.—Loos, P. A.; Rudolph, E.
——, Asia.—Chree, C.; Davison, C., 2; Shaw, W. N.
——, Austria.—Conrad, V.
——, Baltic Provinces.—Montessus de Ballore, F. de, 9.
——, Basses-Pyrénées.—Verschaffel, A.
——, Belgium.—Cambier, R.; Cornet, J., 2.
——, Bismarck Archipelago.—Sieberg, A.
——, British, 1889–1909.—Davison, C., 1911.
——, California.—Böse, E., 4.
——, Callao, 1746.—Valencia, A. R.
——, Carpathians.—Lozinski, W. von, 3.
——, Chile.—Hope-Jones, H.; Rudolph, E.
——, Colombia.—Rudolph, E., 2.
——, Congo Belge.—Cornet, J., 8; Passau, G.
——, Costa Rica.—Alfaro, A.; Michaud, G.; Sapper, K. T., 2; Tristán, J. F., 1–4, & 6.
——, Easter I.—Montessus de Ballore, F. de, 7.
——, Europe (Central).—Lais, R., 2.
——, Formosa, 1906.—Gagel, C., 5.
——, France.—Douxami, H., 4 & 6; Fabry, L.; Lemoine, P., 4; Verschaffel, A., 2.
——, Germany.—Bamler, G.; Fraas, E., 2; Krauss, F.; Lais, R.; Schmidt, A.
——, Glasgow, 1910.—Gregory, J. W., 3.
——, Greece.—Eginitis, D.
Earthquakes, Guatemala.—Milne, J., 2.
——, Hungary.—Ballenegger, R.; Laczko, D.; Réthly, A.
——, Iceland.—Harboe, E. G., 2.
——, India.—Davison, C., 5.
——, Italy.—Agamennone, G.; Rizzo, G. B.; Walker, F. M.
——, Jamaica.—Cornish, V.
——, Japan.—Bailey, E. B., 2; Davison, C., 6; Omori, F., 2; Walker, F. M.
——, New Guinea.—Sieberg, A.
——, New Zealand.—Hogben, G., 2.
——, Norway.—Kolderup, C. F., 2–4.
——, Peru.—Hope-Jones, H.
——, Piura.—Valencia, A. R., 3.
——, Scandinavia.—Harboe, E. G.
——, Scheibbs, 1876.—Kowatsch, A.
——, Sea of Marmora.—Macovei, G., 3.
——, Spain.—Sánchez Lozano, R., 2.
——, Styria.—Heritsch, F., 7.
——, Sweden.—Sahlström, K. E.
——, Switzerland.—Früh, J.; Tarnuzzer, C., 2.
——, Turkestan.—Bogdanovich, K. I., 2; Douxami, H., 3; Norris, F. E.; Sidgreaves, W.
——, Turkey.—Sidgreaves, W., 3.; Walker, G. W.
——, Tyrol.—Schorn, J.
——, U.S.A.—Fuller, M. L., 2; Montessus de Ballore, F. de, 8; Reid, H. F., 3.
——, Verni.—Gholitzuin, B.
——, Zante I.—Agamennone, G., 2.
——, building construction &.—Alvarado, A.
——, catalogue of destructive.—Milne, J.
——, determination of epicentre.—Braak, C.; Gholitzuin, B., 4; Rosenthal, E.
——, determination of focus.—Gholitzuin, B., 3.
——, determination of intensity.—Sieberg, A., 3.
——, determination of origin.—Klotz, O.; Zeissig, C.
——, elastic-rebound theory.—Reid, H. F.
——, epeirogenic movements and.—Montessus de Ballore, F. de, 3.
——, geographic coordinates of seismic stations and.—Szirtes, S.
——, isoseismic curves &.—Montessus de Ballore, F. de, 2.
——, luminous phenomena &.—Galli, I.; Montessus de Ballore, F. de.
——, periodicity of.—Montessus de Ballore, F. de, 5.
——, sun-spots and.—Montessus de Ballore, F. de, 6.
——, velocity of.—Negri, G.
—— -apparatus, Quervain, A. de.
—— -constants.—Negri, G., 2.
—— -forecasts.—Davison, C., 6.
—— -origins.—Hogben, G.
—— -records, Bochum.—Mintrop, L.
—— ——, Graz,—Stücker, N., 1 & 2.

Earthquake-records, Harvard.—Woodworth, J. B., 2.
—— ——, Königsberg.—Tornquist, A., 2.
—— ——, Lille.—Douxami, H., 7.
—— ——, New Zealand.—Hogben, G., 2,
—— ——, Strasburg.—Gerland, G., 1 & 2.
—— ——, Vienna.—Schneider, R.
—— ——, Woodbridge Hill (Guildford).—Norris, F. E., 3.
—— ——, Switzerland.—Früh, J., 2.
—— -waves, dispersion of.—Gholitzuin, B., 2.
—— ——, speed of.—Gholitzuin, B., 3.
—— oscillations.—Gutenberg, B.
East Kootenay (British Columbia).—Schofield, S. J., 2.
Eastport Quadrangle (Maine). — Williams, H. S.
Ebbsfleet (Kent).—Strahan, A.
Eboracia.—Seward, A. C., 2.
Ebstorf (Hanover).—Olbricht, K.
Ecca Beds, Natal.—Hatch, F. H., 1 & 5.
Eccyliopterus.—Richthofen, F. von.
Echinarachinus.—Jackson, R. T.
Echinobrissus.—Fucini, A., 2.
Echinocardium.—Hawkins, H. L., 2.
Echinocorys.—Hawkins, H. L., 1 & 2.
Echinocrinus & *Echinocystites.*—Jackson, R. T.
Echinoderma. *See* Asteroidea, Echinoidea, &c.
Echinoidea, Cretaceous.—Böse, E., 3; Hawkins, H. L., 1, 2, 4 & 6; Lambert, J.; Leriche, M., 3.
——, Devonian.—Olsson, A.
——, Jurassic.—Fucini, A., 2; Hawkins, H. L., 6.; Papp, K. von; Paris, E. T.
——, Mesozoic.—Faas, A. V.
——, Palæozoic.—Jackson, R. T.
——, Tertiary.—Böse, E.; Canavari, I.; Cotter, G. de P.; Faas, A. V.; Hawkins, H. L., 3; Lovisato, D., 1-3; Popescu-Voitesti, I.; Stefanini, G., 1-3; Toula, F., 2; Vogl, V.
——, evolution in.—Hawkins, H. L.
——, phylogeny of.—Jackson, R. T.; Schuchert, C.
Echinolampas. — Popescu-Voitesti, I.; Stefanini, G.
Echinus.—Jackson, R. T.
Echioceras.—Buckman, S. S.
Echitonium.—Engelhardt, H.
Écluse, Fort l' (Ain).—Kilian, C. C. W., 4.
Economic geology, Egypt.—Hume, W. F., 2.
—— ——, United States.—Hayes, C. W., 2.
—— ——, recent literature.—Knopf, A.; Loughlin, G. F., 2; Umpleby, J. B., 3.
—— ——, teaching of.—Smith, W. S. T., 2; Tolman, C. F. *fil.*
Edaphodon.—Leriche, M., 3; Woodward, A. S., 3.
Eder R. (Germany).—Bauer, M.
Edinburgh.—Day, T. C.; Evans, J. W., 5.
Edmondia.—Herrick, C. L.; Richthofen, F. von.
Education, geology and.—Wagner, P.
Edzell (Forfar).—Evans, J. W., 5.
Effra R. (Surrey).—Leighton, D., 2.
Eganstown (Victoria).—Howitt, A. M., 8.
Egge Mts. (Westphalia).—Brandes, T., 3.
Eggenburg (Lr. Austria).—Schaffer, F. X., 3.
Egremont (Cumberland).—Kreutz, S., 4.
Egypt.—Andrews, C. W., 2; Ball, J., 2.; Beadnell, H. J. L., 1 & 2; Couyat, J., 2; Dacqué, E., 2; Fourtau R.; Grabham, G. W., 2; Hume, W. F., 1-3; Lucas, A.; Mayet, L.; Newton, R. B.; Pachundaki, D. E.; Prior, G. T.; Walther, J. K., 2 & 5; *see also* EGYPT, Geol. Surv.
Eid Fjord (Norway). — Kaldhol, H.; Königsberger, J., 5.
Eiselia.—Dietz, E.
Ekstromsberg ore-field (Lapland). — Geijer, P., 5.
Ekwan River district (Ontario). — Whiteaves, J. F.
El Nakhla el Baharia (Nile Delta).—Ball, J., 2; Prior, G. T.
El Paso Range (California).—Baker, C. L., 3.
Elæagnus, Engelhardt, H.
Elæocarpus.—Engelhardt, H., 2.
Elæodendron.—Engelhardt, H.
Elandslaagte (Natal). — Hatch, F. H., 5.
Elasmobranchii, Eocene. — Savchenko, A. S.
——, Portlandian.—Bogho-lubov, N. N., 3.
Elasmodectes.—Woodward, A. S., 3.
Elasmosaurus.—Bogholubov, N. N., 1 & 5.
Elasmostoma.—Welter, O. A.
Elatides.—Thomas, H. Hamshaw.
Elba I.—Aloisi, P.; Capacci, C.; Termier, P.; Vogt, T., 2.
Elbe Valley (Germany).—Ziervogel, H.
Elbrus district (Caucasus).— Gherasimov, A. P., 2.
Elephas.—Andreucci, A.; Andrews, C. W., 2; Dietrich, W. O.; Harlé, É.; Kadić, O.; Kormos, T., 17; Meli, R.; Pontier, G.; Protopopescu-Pake, E. I., 2; Schlesinger, G.; Szentpétery, S. von; Zuffardi, P.
Elgin (Scotland).—Huene, F. von, 5.
Elinghen (Pas-de-Calais).—Breton, L.
Elisa Mine (Sonora).—Lee, M. L.
Elk Mt. Mining District (Nevada).—Schrader, F. C.
Elko County (Nevada). — Schrader, F. C.
ELLS, R. W., *Obit.*—*See* BISHOP, W. L.

Elsburg Beds (S. Afr.).—Mellor, E. T., 4.
Eltham (Kent).—Leach, A. L., 2.
Elvans.—Flett, J. S., 4; Reid, C., 3.
Emeralds.—Moir, J., 2; Olden, C.
Emeraldella.—Walcott, C. D.
Emilia (Italy).—Camerana, E.; Roccati, A., 2; Stefano, Gius. de, 1 & 2.
Emmericia.—Halaváts, G. von.; Kormos, T., 9.
EMMONS, S. F., *Obit.*—*See* Becker, G. F.; Hague, A.; *&* Watts, W. W.
Empo.—Moodie, R. L., 4.
Ems (Hesse).—Kruemmer, A., 2.
Emscherian, Hanover.—Schröder, H.
Emydochampsa & Emydops.—Broom, R., 6.
Enallaster.—Böse, E., 3.
Enantiostreon.—Richthofen, F. von.
Enargite.—Lazarevic, M., 2.
Encantada (Chihuahua).—Böse, E., 3.
Enchostoma.—Girty, G. H.
Encope.—Böse, E.; Toula, F., 2.
Encrinurus.—Chapman, F.
Endoceras.—Steinmann, J. H. C. G. G., 7.
Endocostea.—Johnson, D. W.; Toula, F., 4.
Endolepis.—Fliche, P.
Endomorphism.—Longchambon, M.
Endothiodon.—Broom, R., 6.
Endothyra.—Noth, R.
Engadin (Switzerland).—Ampferer, O., 8; Cornelius, H. P.; Grubenmann, U.; Heritsch, F., 11; Paulcke, W., 2; Spitz, A., 2; Tarnuzzer, C., 3.
Engelberg (Switzerland).—Arbenz, P., 2.
'English Channel River.'—Hull, E., 1 & 2.
Engonoceras.—Böse, E., 3.
Enslow Bridge (Oxon.).—Allorge, M. M.
Enteles.—Richthofen, F. von.
Enteletes.—Vadász, M. E.
Entomis.—Zamyatin, A. N., 3.
Entomostraca. *See* Ostracoda, *&c.*
Eobuthus.—Pocock, R. I.
Eocene, Alaska.—Atwood, W. W.
——, Algeria.—Joleaud, L.
——, Austria.—Kohn, V.
——, Belgium.—Cornet, J., 4; Mourlon, M. F., 1 & 2; Rutot, A. L., 2.
——, Burma.—Cotter, G. de P.
——, Bosnia.—Oppenheim, P.
——, California.—Dumble, E. T.
——, Cornwall.—Flett, J. S., 4.
——, Egypt.—Fourtau, R.
——, France.—Azéma, L.; Clark, E. G.
——, Hungary.—Vogl, V., 2.
——, Italy.—Fabiani, R.; Sacco, F., 2.
——, Java.—Martin, K.
——, Kent.—Chandler, R. H., 3; Whitaker, W., 3.
——, Maryland.—Miller, B. L., 2.
——, Montana.—Peale, A. C.
——, Rumania.—Popescu-Voitești, I.
——, South Australia.—Howchin, W.
——, Suffolk.—Boswell, P. G. H.
Eocene, Surrey.—Dewey, H., 2.
——, Thames Basin.—Irving, A.
——, Trinidad.—Maury, C. J.
——, Uri.—Staub, W.
——, Veglia I.—Remeš, M., 2.
——, Wyoming.—Granger, W.; Sinclair, W. J., 3.
—— conglomerates, block of *Favosites* in.—Athanasiu, S.
Eocidaris.—Jackson, R. T.
Eocteniza.—Pocock, R. I.
Eolation.—Keyes, C. R.
Eoliths.—Sarasin, P.
——, Belgian Oligocene.—Bonnet, R.
Eophrynus.—Pocock, R. I.
Eoradiolites.—Parona, C. F., 3.
Eotylopus.—Matthew, W. D.
Eozoon.—Kirkpatrick, R., 3-5; Stansfield, J.
Ephippioceras.—Hind, W.
Epiaceratherium.—Abel, O.
Epiaphelops.—Cook, H. J.
Epiaster.—Böse, E., 3; Lambert, J.
Epidiorite, Argyllshire.—Peach, B. N., 5.
——, Scottish Highlands.—Bates, G. F.
——, Witwatersrand.—McDonald, D. P.
—— dykes, Cornwall.—Flett, J. S., 4.
Epidote.—Goldschmidt, V. M.; Tacconi, E.
Equilibrium theory, geology and.—Elsden, J. V.
'Equiplanation.'—Cairnes, D. D., 1 & 2.
Equisetites.—Lignier, O.; Seward, A. C., 2 & 7; Thomas, H. Hamshaw.
Equisetum.—Berry, E. W.; Fliche, P.
Equus.—Antonius, O.; Cardosa, A.; Sefve, I.; Stefano, Gius. de.
Erato.—Cerulli-Irelli, S., 2.
Erbendorf (Bavaria),—Schreiter, R.
Erbsloche Grauwacke, Kellerwald.—Assmann, P.
Eremopteris.—Arber, E. A. N., 3.
Erethizon.—Kellogg, L.
Ericia.—Jooss, C. H., 2.
Eridotrypa.—Bassler, R. S.
Eriphostoma.—Broom, R., 4.
Eriphyla.—Krenkel, E.
Erith (Kent).—Chandler, R. H., 3.
Erosion.—Andrews, E. C.; Dellenbaugh, F. S.; Günther, S.
——, Alaska & Yukon.—Cairnes, D. D.
——, Delos.—Cayeux, L., 2.
——, Desert Ranges (U.S.A.).—Paige, S., 5.
——, German East Africa.—Staff, H., von, 2.
——, Lessine Alps.—Fabiani, R., 3.
——, Spitsbergen.—Högbom, B., 2.
——, post-Glacial.—Wright, G. F.
——, rate of.—Stiny, J.
——, sand-blast.—Fearnsides, W. G.
——, water.—Rekstad, J., 4.
—— surface, Idaho.—Blackwelder, E.; Umpleby, J. B., 4.
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——, Berne.—Gerber E. .3.

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Erycina.—Cossmann, M., 2.
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Erzberg (Styria).—Uhlig, V. K., 3.
Escharopora.—Bassler, R. S.
Esk, R. district.—Harker, A., 2.
Eskers, Alpine.—Philipp, H., 2.
——, Finland.—Sederholm, J. J., 3.
——, Mecklenburg.—Geinitz, E.
——, Michigan.—Wooster, L. C.
——, Pomerania.—Hess von Wichdorff, H., 8.
——, Prussia (East).—Krause, P. G.
——, Schleswig.—Woldstedt, P.
——, relations of kames and. Gregory, J. W., 4.
Essen (Rhenish Prussia).—Walter, O. A.
Essex.—Irving, A., 3, 4, & 6; Moir, J. R., 6; Picton, H.; Underwood W.; Warren, S. H.
Essexite.—Frentzel, A.; Quensel, P. D.; Tyrrell, G. W.
Estancia Valley (N. Mex.).—Meinzen, O. F.
Estérel, (Var).—Drugman, J., 2; Lévy, Alb. M.
Estheria.—Picard, E.; Pruvost, P.
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Esthonia. — Montessus de Ballore, F. de, 9.
Esthoniopora.—Bassler, R. S.
Étaples (Pas-de-Calais).—Pagniez, —, 2.
Etna (Sicily).—Franco, S. di; Ponte, G., 1 & 2; Sieberg, A., 2.
Etoblattina.—Bolton, H.
Etterbeek (Brabant).—Mourlon, M. F.
Eucallimyia.—Cockerell, T. D. A., 2.
Eucalyptus.—Engelhardt, H.
Eucidaris.—Jackson, R. T.
Eucla Division (W. Australia).—Glauert, L., 2.
Euclastes.—Misuri, A.
Euclea.—Engelhardt, H.
Euganean Hills (Italy). — Panebianco, H.; Stark, M., 2.
Eugenia.—Engelhardt, H.
Eulen, Mt. (Bohemia).—Hibsch, J. E., 2.
Eumicrerpeton.—Moodie, R. L.
Euomphalus.—Dietz, E.
Euoplocephalus.—Lambe, L. M.
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——, geothermal observations in deep borings of Central.—Königsberger, J., 8.
——, gneiss-zones of.—Königsberger, J., 2.
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——, Palæolithic man in.—Munro, R.
——, Pliocene mollusca of Western.—Tesch, P.
——, post-diluvial climate of.—Marek, R.
Eurycare.—Holtedahl, O.
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Eurynoticeras.—Burckhardt, C.
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Euvola.—Böse, E.
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Evansite.—Schaller, W. T., 2.
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Evonymus.—Engelhardt, H.
Ewell (Surrey).—Whitaker, W., 2.
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Eymouthiers Massif (Haute-Vienne).—Mouret, G.

Fabrecia.—Meunier, F., 3.
Fabriano (Marches, Italy).—Canavari, I.
Făgăraser Mts. (Moldavia).—Reinhard, M.
Falkland Is.—Crook, T., 4; Halle, T. G.
Falmouth Series, Cornwall.—Flett, J. S., 4.
False-bedding.—Davies, A. M.
'Fanglomerate,' Nevada.—Lawson, A. C., 3.
Farnborough (Kent).—Dibley, G. E., 2.
Farrea.—Schrammen, A.
Farringdon (Berks.).—Hawkins, H. L., 4.
Fascicularia.—Vinassa de Regny, P., 4.
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——, Australia.—David, T. W. E.
——, Belgium.—Rauw, H. de, 2.
——, Cornwall.—Flett, J. S., 4.
——, Galicia.—Lozinski, W. von.
——, Idaho & Utah.—Richards, R. W.
——, Jura Mts.—Buxtorf, A., 3.

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——, Rügen & Möen Is.—Hintze, V.
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——, Witwatersrand.—Olver, J. S.
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Fayûm (Egypt).—Beadnell, H. J. L.; Matthew, W. D., 4; Mayèt, L.; Newton, R. B.
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Fehmarn Is. (Baltic).—Gagel, C., 6.
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Fenestella.—Bassler, R. S.; Gortani, M.; Whiteaves, J. F.
—— -Beds, Kashmir.—Hayden, H. H.; Middlemiss, C. S.
Fennoscandia.—Gavelin, A., 2; Sederholm, J. J.
Fergana (Turkestan).—Mushketov, D. I.; Sokolov, D. V., 2; Vadász, M. E.
Ferganian.—Sokolov, D. V., 2.
Fernando Po I.—Böse, W.
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Fieldia.—Walcott, C. D.
Fifeshire.—Balsillie, D.; Bather, F. A., 6; Craig, R. M., 1 & 2; Gordon, W. T., 2; Woodward, A. S., 8; Wright, J. *fil.*
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Finger lakes.—Spencer, J. W. W., 2.
Finistère (France).—Barre, H. du Laurens de la; Collin, L.
Finkenwald (Pomerania).—Linstow, O. von, 3.
Finland.—Douvillé, R., 3; Gavelin, A. Hänninen, K.; Hansen, A. M.; Sederholm, J. J., 2–5.
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——, Norway.—Hull, E.
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Florissant (Colo.).—Cockerell, T. D. A., 1 & 2; Johannsen, O. A.; Wickham, H. F.
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Flysch, Bernese Alps.—Seeber, H.
——, Hautes Alpes.—Boussac, J.
——, Switzerland.—Heim, Arn.
——, Vorarlberg.—Mylius, H.; Wepfer, E., 2.
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Föhr I. (N. Frisian Is.)—Häberlein, —.
Foix (Ariège).—Bertrand, L., 3.
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——, France (N.W.).—Bergeron, J.
——, Glen Orchy district.—Bailey, E. B., 4.
——, Kazan & Simbirsk.—Mazarovich, A.
——, Rhode I.—Lahee, F. H., 2.
——, West of England.—Collins, J. H., 3.
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Fon Tréboula (Hérault).—Vallot, J.
Fontaine-le-Mallet (Seine Inférieur).—Cahen, A.
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Foordella.—Longstaff, J.
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——, Trias.—Beasley, H. C.: Bräuhäuser, M.; Maidwell, F. T., 3.
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——, Selsey Bill shore-sands.—Heron-Allen, E.
——, Carboniferous.—Deprat, J., 2; Schellwien, E.; Vadász, M. E.; Yabe, H.
——, Cretaceous.—Böse, E., 3; Douvillé, H., 4; Schubert, R. J., 5; Silvestri, A., 2.
——, Eocene.—Cotter, G. de P.; Douvillé, H., 2 & 3: Franke, A.; Oppenheim, P.; Ryabinin, A. N., 2; Schubert, R. J., 3.
——, Miocene.—Lörenthey, I. von; Douvillé, H., 2.
——, Permian.—Deprat, J., 2.
——, Pliocene.—Fornasini, C.
——, Senonian.—Rychlicki, J.
——, Tertiary.—Canavari I.; Chapman, F., 5; Dervieux, E.; Fabiani, R.; Noth, R.; Ravagli, M.; Rutten, L.; Schmidle, W.; Silvestri, A.; Stoltz, K.
——, Trias.—Vadász, M. E., 2.
——, classification of.—Schubert, R. J., 7.
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Ford Beds, Pembroke.—Thomas, Herbert H.
Forel, F. A., *Obit.*—*See* Mill, H. R.
Forest-bed, Falkland Is.—Halle, T. G.
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Forfarshire.—Craig, R. M., 3; Evans, J. W., 5; Hickling, G., 1 & 2.
Forficula.—Burr, M.
Forges-les-Eaux (Seine-Inférieure).—Nègre, G., 2.
Formosa I.—Gagel, C., 5.
Fornaci (Venetia).—Craveri, M., 2.
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Fraxinus.—Engelhardt, H.
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Fredrikshald (Norway).—Rekstad, J.
Freiberg (Saxony).—Henglein, M.
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Frick Valley (Aargau).—Braun, L.
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Friuli (Venetia).—Fabiani, R., 4; Klinghardt, F.; Stefanini, G., 4.
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Fumay (Ardennes).—Malaise, C. H. G. L., 3.
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——, Cornwall.—Flett, J. S., 4.
——, Passau.—Frentzel, A.
——, Patagonia.—Quensel, P. D.
——, Samos.—Butz, J.
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——, Melnikov boring.—Doss, B.
——, Oklahoma.—Gould, C. N., 1 & 2.
——, Transylvania.—Noth, J.; Schmidt, C.
——, United States.—Campbell, M. R.
——, accumulation in sandstone.—Johnson, R. H.
——, bibliography of.—Stopnevich, A. D.
——, helium in.—Moureu, C.
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——, quaquaversal structure and.—Clapp, F. G.
——, volcanic.—Brun, A.; Clarke, F. W.
—— boring for, Hamburg.—Kört, W.
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——, Cretaceous.—Böse, E., 2 & 3; Clark, W. B.; Herrick, C. L., 2; Johnson, D. W.; Peron, A.; Pilsbry, H. A.
——, Devonian.—Born, A.; Chapman, F., 8; Gortani, M.; Herrmann, F., 3; Kindle, E. M., 4.
——, Eocene.—Boury, E. de; Hull, A. F. B.; Martin, K.; Newton, R. B.; Oppenheim, P.: Vincent, E.; Weaver, C. E., 2.
——, Jurassic.—Fucini, A., 5; Haas, O.; Papp, K. von; Ryabinin, V.
——, Miocene.—Canavari, I.; Guppy, R. J. L., 1 & 2; Halaváts, G. von; Lörenthey, I. von; Schaffer, F. X., 3; Sintzov, I. T., 2; Weaver, C. E., 2.
——, Permian.—Dietz, E.; Girty, G. H., 2; Herrick, C. L.
——, Pleistocene.—Bartsch, P., 1 & 2; Dall, W. H.; Kaldhol, H.; Kormos, T., 4, 6, 8, 10, 11, 17 & 18; Nelli, B.; Weiss, A.
——, Pliocene.—Bartsch, P., 2; Tesch, P.; Toula, F.
——, Silurian.—Leriche, M.; Priem, F.; Richthofen, F. von; Whiteaves, J. F.
——, Tertiary.—Bartsch, P.; Böse, E.; Cerulli-Irelli, S., 1 & 2; Chapman, F., 2; Dollfus, G. F., 3; Fischer, K.; Gignoux, M.; Jooss, C. H., 1, 2, & 3; Kinkelin, F.; Knett, J.; Vogl, V.; Wenz, W.
——, Trias.—Salopek, M.; Stefano, Giov. di.
Gastrioceras.—Arthaber, G. von; Girty, G. H.; Richthofen, F. von.
Gatun (Panama).—Toula, F., 2.
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—— ——, Madagascar.—Lacroix, A. F. A., 14.
—— ——, Museum of Practical Geology.—McLintock, W. F. P.

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—— ——, Austria.—Tietze, E. E. A., 2.
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—— ——, United States.—Smith, G. O.; *see also* UNITED STATES, Geol. Surv.
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——, applied.—Kensch, —; *see also* Economic geology.
——, chemical.—Elsden, J. V.
——, —— statics and.—Marc, R.
——, education and.—Brauns, R., 4; Wagner, P.
——, iron-ore exploration and.—Leith, C. K.
——, isostasy and.—Hayford, J. F.
——, LEONARDO DA VINCI and.—Baratta, M.
——, radioactivity and. — Czek, W.; Suess, F. E., 3.
Geology, relation of geography to.—Davis, W. M.
——, sanitation &.—Woodward. H. B.
——, some problems of.—Gregorio, A. de, 3.
——, stratigraphical.—Hahn, F. F.
——, teaching of.—Gortani, M., 4.
——, text-books.—Haug, É.; Kayser, E.; Walther, J. K., 4.
——. *See also* INTERN. CAT. SCI. LIT.
Geomorphologic maps.—Gehne, H.
Geomorphology, Finland. — Sederholm, J. J., 4.
Geophysics.—Day, A. L.
——, isostasy and.—Hayford, J. F.
Geosynclines, Alpine.—Deecke, J. E. W.
Geothermal observations. — Königsberger, J., 8.
Gephyroceras.—Arthaber, G. von; Born, A.
Geralinura & *Geraphrynus*.—Pocock, R. I.
German East Africa.—Böhm, J., 4; Hennig, E., 2; Krenkel, E.; Staff, H. von, 2.
—— South-West Africa.—Dahms, P.; Gürich, G.; Kaiser, E., 3; Rosický, V.
Germany, barytes-deposits. — Bärtling, R.
——, coalfields of.—Frech, F.
——, formation of the Jurassic of. — Fischer, E.
——, geology of.—Arldt, T., 2; Walther, J. K., 4; Winterfeld, F.
——, humus-deposits of.—Potonié, H., 2.
——, lake-waters of North.—Jentzsch, C. A., 6.
——, Palæolithic age in.—Schmidt, R. R., 2.
——, Pleistocene climate in.—Schulz, A.
——, soil-map of.—Jentzsch, C. A., 8.
——, stone industry in.—Hebbel, E.
—— (North).—Gagel, C., 3; Jentzsch, C. A., 7.
—— (——), glaciation of.—Habenicht, H.; Keilhack, L. H. K.; Werth, E.
—— (N.W.), peat-mosses.—Sernander, R., 2.
—— (South), earthquakes.—Schmidt, A.
—— (S.W.), earth-movements in. — Reck, H., 3.
Germete (Westphalia).—Mestwerdt, A.
Gervilleia.—Böse, E., 3; Stefano, Giov. di; Wittenburg, P. von.
Gföhler Gneiss, Lr. Austria.—Reinhold, F.
Ghegna (Lombardy).—Tommasi, A., 1 & 2.
Giant's Causeway (Antrim).—Cole, G. A. J., 4.
Giessen (Hesse). — Mordziol, C., 3; Schottler, W.
Gigantopteris.—White, D.
Gignog Group.—Thomas, Herbert H.

Gileppe, Lake.—Gillet, C., 3.
'Gilgai' country (New South Wales).—Jensen, H. I., 2.
Ginkgo.—Krishtofovich, A. N.; Seward, A. C., 2, 3, & 7; Thomas, H. Hamshaw.
Gipping Valley (Suffolk).—Boswell, P. G. H.
Gironde (France).—Vignal, L.
Givenchy (Pas-de-Calais).—Gosselet, J. A. A., 6.
Gizzard-stones, fossil.—Schaffer, F. X., 5.
Glacial action, Swansea district.—Roberts, J.
—— ——, crescentic rock-fracture and.—Lahee, F. H.
Glacial deposits, Alaska.—Martin, G. C., 2; Tarr, R. S., 3.
—— —— (Permian), Brazil.—Woodworth, J. B., 3.
—— ——, Buckinghamshire.—Sherlock, R. L.
—— ——, Caucasus.—Gherasimov, A. P., 2.
—— ——, Colorado.—Atwood, W. W., 4; Ransome, F. L.
—— ——, Cumberland.—Smith, Bernard, 2.
—— ——, Föhr I.—Häberlein, —.
—— ——, French Alps.—Kilian, C. C. W.
—— ——, Germany.—Krause, P. G.; Werth, E.
—— ——, Isère.—Jacob, C.
—— ——, Mecklenburg.—Geinitz, E.
—— ——, Michigan.—Wooster, L. C.
—— ——, Montana.—Alden, W. C.
—— ——, Nottinghamshire.—Lamplugh, G. W., 8.
—— ——, Ontario.—Taylor, F. B., 2.
—— ——, Poland.—Koroniewicz, P.
—— ——, Pomerania.—Hess von Wichdorff, H., 8.
—— ——, Puy-de-Dôme.—Glangeaud, P., 4.
—— ——, Schleswig.—Woldstedt, P.
—— ——, Severn Plain.—Gray, J. W.
—— ——, Suffolk.—Boswell, P. G. H.; Hill, E.; Slater, G., 2.
—— ——, Sweden.—Rekstad, J.
—— ——, Switzerland.—Blösch, E.; Frei, R.
—— ——, Wales (South).—Strahan, A., 2.
—— ——, Wyoming.—Sinclair, W. J., 2.
—— ——, human remains in.—Moir, J. R., 3.
—— ——, mechanical analyses of.—Œyen, P. A., 2.
—— ——. *See also* Eskers, Kames, *&c.*
Glacial drift, land ice and.—Crook, T.; Deeley, R. M., 2; Lamplugh, G. W., 2.
—— erosion.—Deeley, R. M., 3; Gregory, J. W.; Taylor, F. B.; Werenskiold, W., 2.
Glacial fauna & flora, Baden.—Stark, P.
—— flora, Switzerland.—Rytz, W.
—— geology.—Ampferer, O., 4.
—— lakes, New York.—Fairchild, H. L.
—— period, Mongolia & Siberia.—Granö, J. G.
—— ——, N.E. Africa.—Hume, W. F., 4.
—— ——, British plants & the.—Reid, C.; Scharff, R. F., 2.
—— ——, cause of.—Hull, E.
—— & pre-Glacial changes, Dee Valley. Wills, L. J.
Glaciation, Ain.—Kilian, C. C. W., 4.
——, Alaska.—Atwood, W. W.; Capps, S. R.; Moffit, F. H.; Smith, P. S., 2; Tarr, R. S.
——, Alps.—Philipp, H., 2.
——, Argyllshire.—Peach, B. N., 5.
——, Ariège.—Mengaud, M.
——, Australia.—Howchin, W., 2.
——, Brandenburg.—Schmierer, T.
——, Cape Breton.—Brodie, W. S.
——, Colorado.—Atwood, W. W., 3; Hole, A. D.
——, Cumberland.—Smith, Bernard, 2.
——, Dakota & Nebraska.—Todd, J. E., 3.
——, Donegal.—Wright, W. B., 2.
——, Finland.—Sederholm, J. J., 4.
——, French Alps & Provence.—Martin, D., 1 & 2.
——, Germany (North).—Habenicht, H.
——, Greenland.—Koch, I. P.
——, Harz Mts.—Wünschmann, K.
——, Iceland.—Pjeturss, H.
——, Iowa.—Carman, J. E.
——, Ireland (N.E.).—Dwerryhouse, A. R.
——, Isère.—Blanchard, R.
——, Kashmir.—Novarese, V., 3.
——, Kiirunavaara district.—Sjögren, O.
——, Lake Superior Region.—Van Hise, C. R.
——, Menai Strait.—Greenly, E., 2.
——, Minnesota.—Leverett, F.
——, Mont Dore Massif.—Glangeaud, P., 5.
——, New York.—Fairchild, H. L., 2; Stoller, J. H.
——, New Zealand.—Adkin, G. L.; Speight, R.
——, Norway.—Œyen, P. A., 6; Vogt, J. H. L., 2; Werenskiold, W., 2.
——, Oklahoma Palæozoic.—Woodworth, J. B.
——, Pennsylvania.—Wright, G. F.
——, Piedmont.—Prever, P. L.
——, Rhön Mts.—Buecking, H.; Dietrich, B., 3; Philipp, H.; Präsent, H.
——, Ross-shire.—Peach, B. N., 4.
——, Scotland.—Barrow, G., 5.
——, Silesia.—Behr, J.
——, Sweden.—Munthe, H., 3.

Glaciation, Switzerland.—Baltzer, A.; Lautensach, H., 2.
——, Thuringia.—Wolff, K.
——, U.S.A.—Hershey, O. H., 4.
——, Permian.—Halle, T. G.; Holtedahl, O., 3; Woodworth, J. B., 3.
——, striation and.—Irving, A., 8; Lankester, Sir E. Ray, 2.
—— of seas.—Drygalski, E. von, 2.
—— of valleys.—Distel, L.; Drygalski, E. von, 4; Penck, F. C. A.; Philippson, A., 2; Stiny, J., 2.
Glacier National Park (Montana).—Alden, W. C.
Glaciers.—Hobbs, W. H., 2; Rudzki, M. P.
——, Africa.—Jäger, F.
——, Alaska.—Bretz, J. H.; Martin, L.; Moffit, F. H., 2; Tarr, R. S.
——, Alps.—Bonney, T. G., 2; Brückner, E.; Marinelli, O.; Rabot, C.
——, Ariège.—Canal, J.
——, British Columbia.—Palmer, H.
——, Himalayas.—Grinlington, J. L.
——, Italy (N.).—Reishauer, H.
——, Morteratsch.—Buchanan, J. Y.
——, Norway.—Hoel, A., 2; Monckton, H. W.; Œyen, P. A., 12; Rekstad, J., 3.
——, Salzburg.—Huebl, A. F. von.
——, Spitsbergen.—Hoel, A.; Lamplugh, G. W.
——, Sweden.—Hamberg, A., 2.
——, Switzerland. — Æberhardt, B.; Forel, F. A., 2; Heim, Alb., 2; Mercanton, P. L.; Schardt, H.
——, Tyrol.—Angerer, H.; Gruber, O.; Klebelsberg, R. von, 4.
——, U.S.A.—Reid, H. F., 2.
——, æolian dust and.—Vallot, J., 2.
——, drainage & wastage of.—Engeln, O. D. von.
——, measurements of.—Klebelsberg, R. von, 4 & 5.
——, motion of.—Deeley, R. M.; Finsterwalder, S.; Ogilvie, A. G., 2.
——, variations of.—Œyen, P. A., 9; Rabot, C., 1 & 2.
——. *See also* Ice & Snow-patches.
Gladbach, Bergisch (Rh.-Pruss.).—Brockmeier, H., 1 & 2.
Glamorgan.—Roberts, J.; Strahan, A., 2.
Glandulina.—Vadász, M. E., 2.
Glasgow.—Gregory, J. W., 3.
Glaucodot, isomorphism and.—Beutell, A.
Glauconite, formation of.—Vialay, A.
Glauconome.—Bassler, R. S.
Glaucophane-rocks, Valais.—Woyno, T. J.
Gleichenites.—Thomas, H. Hamshaw.
'Glen' Bismuth-Mines, Queensland.—Pearce, W. C. W.
Glen Clova (Forfarshire).—Barrow, G., 5.
Glen Ernan (Aberdeen).—Mackie, W., 3.
Glen Orchy Anticline (Argyllshire).—Bailey, E. B., 4.
Glen Parva (Leicestershire).—Horwood, A. R., 5.
Globidens.—Gilmore, C. W., 2.
Globigerina.—Canavari, I.; Chapman, F., 5; Vadász, M. E., 2.
Globigerina ooze.—Philippi, E.
Globiscala.—Boury, E. de.
Glockeria.—Wedekind, R.
Glockner Glaciers (Tyrol).—Angerer, H.
'Gloduri,' Moldavia.—Enculescu, P., 2.
Glossopteris.—Halle, T. G.; Seward, A. C., 4.
—— flora, Queensland.—Marks, E. O., 2 & 3.
Gloucestershire.—Arber, E. A. N., 4 & 7; Austin, R.; Garrett, J. H.: Gray, J. W.; Richardson, L., 3, 4, 6-8; Sibly, T. F., 2; Woodward, A. S., 2.
Glyphioceras.—Hind, W.
Glyphostoma.—Toula, F.
'Gnamma Holes.'—Maclaren, M.
Gneiss, Alaska.—Loughlin, G. F.
——, Austria (Lr.).—Reinhold, F.
——, Channel Is.—Bonney, T. G., 5.
——, Cornwall.—Flett, J. S., 4.
——, Delos.—Cayeux, 2.
——, Madagascar.—Lacroix, A. F. A., 15.
——, Mysore.—Sampat Iyengar, P., 3.
——, Norway.—Königsberger, J., 5.
——, Poland.—Siemiradzki, J.
——, Scotland.—Barrow, G., 5; Peach, B. N., 4.
——, Styria.—Leitmeier, H.
——, Tessin.—Gutzwiller, E.; Sauerbrei, W.
——, Uganda.—*See* GREAT BRITAIN. Colonial Office, Uganda, 1909.
——, Uri.—Staub, W.
——, Western Australia.—Thomson, J. A., 2.
——, Würtemberg.—Löffler, R.
—— & granite in economics.—Franchi, S., 2.
Gneiss-zones of Europe.—Königsberger, J., 2.
Göthite.—Löw, M., 2; Manasse, E., 2.
Golabgarh Pass (Kashmir).—Seward, A. C., 4.
Gold.—Mumford, F. T.
——, Africa (W.).—Hubert, H., 4.
——, Alaska.—Atwood, W. W.; Brooks, A. H.; Moffit, F. H., 1 & 2; Smith, P. S.
——, Anjou.—Bellanger, E.
——, Arizona.—Hayes, C. W., 2.
——, British Columbia.—*See* BRITISH COLUMBIA, Dep. Mines.
——, Burma.—Brown, J. C.
——, California.—Doolittle, J. E.; Hayes, C. W., 2; Lindgren, W.
——, Colorado.—Mrazek, L.; Prosser, W. C.; Ransome, F. L.
——, Dutch Guiana.—Verloop, J. H.
——, Montana.—Weed, W. H.

Gold, Mysore.—Balaji Rao, B., 3.
——, Nevada.—Eakle, A. S.; Schrader, F. C.
——, New Zealand.—Fraser, C.; Morgan, P. G.; *see also* New Zealand, Dep. Mines.
——, North Carolina.—Nitze, H. B. C., 1 & 2.
——, Nova Scotia.—Faribault, E. R.; Rickard, T. A.
——, Oregon.—Hayes, C. W., 2.
——, Ontario. — *See* Ontario, Bur Mines.
——, Philippine Is.—*See* Philippine Is.
——, Portugal.—Choffat, P., 4.
——, Quebec.—Keele, J., 2.
——, Queensland.—Cameron, W. E., 4; Marks, E. O., 4.
——, Russia.—Perret, L.
——, Salzburg.—Waagen, L., 3.
——, Sarawak.—Geikie, J. S.
——, Siberia.—Hautpick, E. de.
——, South Africa.—Sawyer, A. R.
——, South Australia. — *See* South Australia, Dep. Mines.
——, Sudan (Anglo-Egyptian).—Dunn, S. C.
——, Tauern.—Waagen, L., 2.
——, Transylvania. — Schumacher, F., 2.
——, U.S.A.—Diller, J. S.; Emmons, W. H.; Hayes, C. W., 3; *see also* United States, Geol. Surv., 3.
——, Victoria. — Baragwanath, W.; Dunn, E. J., 1–13; Ferguson, W. H., 1 & 2; Howitt, A. M., 1–8; Whitelaw, H. S., 1, 2; Whitelaw, O. A. L.
——, Western Australia.—Montgomery, A.
——, Witwatersrand.—Hatch, F. H., 2.
—— -enrichment, manganese and.—Emmons, W. H.
——, transportation & deposition of.—Lenher, V.
—— with sillimanite.—Watson, T. L.
Gold Coast.—*See* Gold Coast.
Gold Coast (Western Australia). — Thomson, J. A., 2.
Goldberg Glacier (Salzburg).—Huebl, A. F. von.
Golden Gate Mine (Victoria).—Howitt, A. M., 3.
Goldfields, ancient Turkish.—Dominian, L.
Goldsborough (Victoria).—Howitt, A. M., 4.
Gömör (Hungary). — Junghann, H.; Nyary, A.; Strömpl, G., 2.
Gomphoceras.—Born, A.; Gortani, M.
Gomphognathus.—Broom, R., 3.
Gondwana formation, South America.—Walther, Karl.
Goniarea & *Goniastræa.*—Oppenheim, P.
Goniocidaris.—Jackson, R. T.
Goniloboceras.—Girty, G. H.
Goniometers.—Hutchinson, A.; Goldschmidt, V., 2 & 5.
Goniopholis.—Lull, R. S., 2.
Goniophora.—Leriche, M.
Goniopteris.—Laurent, L.
Gonodus.—Tommasi, A.
Gonostoma.—Wenz, W.
Gopeng Beds.—Scrivenor, J. B., 2.
Görgény-Sóakna (Hungary).—Gaál, S. von, 2.
Gosau Beds.—Ampferer, O., 1 & 6.
Gothlandian, Indo-China.—Mansuy, H.
Græophonus.—Pocock, R. I.
Grammysia.—Leriche, M.
Grampound Grit.—Thomas, I.
Granada (Spain).—Alvarez Aravaca, M.
Grand Cañon, Colorado R. (Ariz.).—Darton, N. H.
Grand Lake (Cape Breton).—Brodie, W. S.
Granite, Austria (Lr.).—Mocker, F.
——, Bohemia.—Krehan, A.
——, Caucasus.—Schafarzik, F.
——, Connecticut.—Dale, T. N., 2.
——, Cornwall.—Flett, J. S., 4.
——, —— & Devon.—Reid, C., 3.
——, Delos.—Cayeux, L., 2.
——, Gasteren.—Truninger, E.
——, Hungary.—Junghann, H.; Siemiradzki, J.
——, Mount Sorrel.—Bennett, F. W., 2.
——, New York.—Miller, W. J., 1 & 3.
——, Passau.—Frentzel, A.
——, Patagonia.—Quensel, P. D.
——, Pembroke.—Thomas, Herbert H.
——, Podolia.—Selskiĭ, V. A.
——, Rumania.—Cadere, D. M.; Cantuniari, S.
——, Scotland.—Barrow, G., 1, 4 & 5; Bates, G. F.
——, Silesia.—Finckh, L., 2; Rimann, E.
——, Styria.—Heritsch, F., 4; Leitmeier, H.
—— (orbicular), Sweden.—Schauf, W.
——, Transvaal.—Hall, A. L., 3.
——, Würtemberg.—Löffler, R.
——, anatase in.—Friedel, G., 3.
——, effects of pressure on.—Adams, F. D.
—— & gneiss in economics.—Franchi, S., 2.
——, hydrothermal alteration of.—Moore, E. S., 4.
——, inclusions in Harz.—Erdmannsdörffer, O. H., 2.
—— -masses, metamorphism and.—Lepsius, R., 2.
——, radioactivity of.—Fletcher, A. L.
—— xenolith, Rhodesia. — Mennell, F. P.
Granite Castle Lode (Queensland).—Cameron, W. E., 3.
Granodiorite, Gasteren.—Truninger, E.
——, Norway (W.).—Kolderup, C. F., 5.

Granodiorite, Victoria.—Skeats, E. W.
——, Zacatecas.—Bergeat, A.
Granophyrs.—Mennell, F. P.; Quensel, P. D.; Wearne, R. A.
Granulite, Delos.—Cayeux, L., 2.
Graphite, Bohemia.—Hinterlechner, K.
——, Ceylon.—Bastin, E. S.
——, Montana.—Bastin, E. S.; Winchell, A. N.
——, Ottawa.—Stansfield, J.
——, Pennsylvania.—Miller, B. L.
——, genesis of.—Vialay, A.
——, quartz-vein with.—Veatch, O.
Graphularia.—Andrée, K., 5.
Graptodictya.—Bassler, R. S.
Graptolitoidea, Ordovician.—Elles, G. L.; Hahn, F. F., 2; Törnquist, S. L., 1 & 2.
——, Silurian.—Elles, G. L.; Steinmann, J. H. C. G. G., 7.
Graubünden.—*See* Grisons.
Gravels, Buckinghamshire.—Sherlock, R. L.
——, Isle of Wight, &c.—Hull, E., 2.
——, Kent.—Chandler, R. H., 2; Leach, A. L.
——, Sierra Nevada.—Lindgren, W.
——, resistant nature of.—Paige, S., 4.
Gravieropsammia.—Filliozat, M., 4.
Gravity anomalies, U.S.A.—Bowie, W.
—— observations, Spain.—Barandica y Ampuero, M. de.
Graz (Styria).—Heritsch, F.
Graz Basin (Styria).—Leitmeier, H.
Graz Earthquake Observatory.—Stücker, N., 1 & 2.
Greci (Rumania).—Rotman, D.
Grecia (Costa Rica).—Alfaro, A.
Greece.—Abel, O., 6; Frech, F., 2; Ktenas, K. A.; Négris, P., 3; Renz, C., 1–5.
Greenalite.—Winchell, N. H., 3.
Greenhithe (Kent).—Priest, S.
Greenland.—Baldauf, R.; Engell, M. C.; Koch, I. P.; Quervain, A. de, 3; Ussing, N. V.
—— expedition, Swiss-German (1909).—Quervain, A. de, 2.
Greenockite.—Allen, E. T., 3.
Greensand (Lr.), Berks.—Hawkins, H. L., 4; *see also* Cretaceous, *&c.*
Greenstones, Cornwall.—Flett, J. S., 4.
Greifswald (Pomerania).—Kranz, W.
Grellingen (Berne).—Buxtorf, A., 2.
Grenoble (Isère).—Gignoux, M., 2.
Grevia.—Kafka, J.
Grevillea.—Engelhardt, H.
Greymouth (N.Z.).—Morgan, P. G.
Greywacke zone, Styria.—Heritsch, F., 3.
Greywethers.—Irving, A., 2.
Griffithides.—Girty, G. H.; Richthofen, F. von.
Grigna (Lombardy).—Tommasi, A., 3.
Griqualand East (Cape Colony).—Rose, J. G.
Grisons (Switzerland).—Meyer, H. L. F.; Sander, B.; Steinmann, J. H. C. G. G., 4 & 5; Tarnuzzer, C.; Termier, P., 3; Wilckens, O., 2.
Grits, formation of.—Courty, G.
Groby (Leicestershire).—Bosworth, T. O., 4.
Groppo del Vescovo (Italy).—Ferrari, M.
'Gros Ventre Slide.'—Blackwelder, E., 2.
Grosseto (Tuscany).—Panichi, U.
Grund (Harz).—Bode, A.
Grunewald (Rh. Prussia).—Keilhack, L. H. K., 3.
Gryphæa.—Böse, E., 2 & 3; Canavari, I.; Douvillé, H.; Herrick, C. L., 2; Vadász, M. E.
Gryponyx.—Broom, R., 8.
Gschnitz Valley (Tyrol).—Kerner, F. von, 3.
Guadaira R. (Seville).—Friend, C. A.
Guadix (Granada).—Alvarez Aravaca, M.
Guanajuato (Mexico).—Hlawatsch, C.; Wittich, E., 4.
Guano, minerals in.—Lacroix, A. F. A., 23.
Guatemala.—Milne, J., 2.
Guatuso (Costa Rica).—Tristán, J. F., 2.
Guelaya (Morocco).—Rubio y Muñoz, C.
Guernsey.—Bonney, T. G., 5.
Guerro (Mexico).—Böse, E., 4.
Guettardia.—Schrammen, A.
Guiana, Dutch.—Verloop, J. H.
Guildford Seismograph Station.—*See* Woodbridge Hill.
Guinea.—Lacroix, A. F. A., 16.
Gulkana R. (Alaska).—Moffit, F. H.
Gulo.—Reynolds, S. H., 2.
Gum, New Zealand fossil.—Penrose, R. A. F.
Gümbelia.—Ravagli, M.
Gurnigel Bad (Berne).—Luterbacher, J.
Gwilden (East Prussia).—Hess von Wichdorff, H., 3
Gymnarthrus.—Case, E. C.
Gymnites.—Salopek, M.
Gypsina.—Ravagli, M.
Gypsum.—Kraus, E. H., 3; Löw, M., 2.
——, Egypt.—Pachundaki, D. E.
——, Nevada.—Rogers, A. F., 4.
——, New Brunswick.—Bailey, L. W., 2; Kramm, H. E.
——, North Mexico.—Wittich, E., 8.
——. Oklahoma.—Gould, C. N., 2.
——, Paris Basin.—Courty, G., 2.
——, as a weathering rock-constituent.—Beyer, O.
——, optical properties of.—Berek, M., 2.
——, temperature of optical uniaxiality in.—Huchinson, A., 5.
—— -weathering, Osterode am Harz.—Spethmann, H.
Gyraulis.—Jooss, C. H., 2; Kormos, T., 8; Lörenthey, I. von.
Gyrenium.—Weaver, C. E., 2.
Gyrodus.—Woodward, A. S., 4.

Gyroporella.—Lignier, O.; Pia, J. von; Stefano, Giov. di; Tommasi, A.
—— -limestone.—Renz, C., 3 & 4.
Gyrodes.—Herrick, C. L., 2.
Gyrorbis.—Kormos, T., 8; Lörenthey, I. von.

Habelia.—Walcott, C. D.
Habkern (Berne).—Beck, P., 1 & 2.
Hadrocheilus.—Till, A., 2.
Hæmatite.—Bayley, W. S.; Zimányi, K., 2.
Hæmatostroma.—Kirkpatrick, R., 5.
Hænleinia.—Toula, F., 4.
HAGENBACH-BISCHOFF, E., *Obit.*—*See* Veillon, H.
Hainault (Belgium). — Anthoine, R.; Burton, R. C.; Cambier, R.; Cornet, J., 1–3; Delépine, G., 2 & 3; Fourmarier, P., 7 & 9; Lohest, M., 4; Stainier, X., 4.
Halia.—Canavari, I.
Halilucites.—Salopek, M.
Haliserites.—Chapman, F., 11; Steinmann, J. H. C. G. G., 3.
HALL, C. W., *Obit.*—*Se* Winchell, N. H.
Halle a. Saale (Saxony).—Jacob, K. H.; Wuest, E.
Hallopora.—Bassler, R. S.
Halloysite, origin of.—Thugutt, St. J., 2.
Haloes.—*See* Pleochroic haloes.
Halorella.—Stefano, Giov. di.
Halotrichite.—Uhlig, J., 3.
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Halysites.—Kolderup, C. F., 6; Lee, G. W., 2.
Hambergite.—Drugman, J., 3; Lacroix, A. F. A., 17.
Hamburg (Germany).—Horn, E.; Kört, W.; Menzel, H., 3; Wolff, W., 2.
Hamilton Shales.—Smith, Burnett.
Hamites.—Pervinquière, L.
Hammerstein (Baden).—Stehlin, H. G., 2.
Hámor (Hungary). — Kadić, O., 3; Kormos, T., 2–4.
Hampshire.—Ashley, H.; Dyer, G. H. T.; Hull, E., 2; Reid, C., 2.
Hamstead (Warwickshire) & Hamstead Quarry Series.—Hardaker, W. H.
Hanging-valleys.—Johnson, D. W., 2; Smith, Bernard, 2; Spencer, J. W. W., 2.
Hanover.—Gräfe, E.; Grupe, O.; Harbort, E.; Olbricht, K.; Schöndorf, F.; Schröder, H.; Stille, H., 1 & 2.
Hants County (N.S.).—Prest, W. H., 2.
Hapalopegma.—Schrammen, A.
Haploceras.—Burckhardt, C.; Till, A.
Haplothecia.—Richthofen, F. von.
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Harburg (Hanover).—Olbricht, K.
HARDMAN'S, E. T., Western Australian Cambrian localities.—Glauert, L., 3.
'Hardpan,' Norway.—Bjœrlykke, K. O., 3.
Harlyn Bay (Cornwall).—Bullen, R. A.
Harpa.—Herrick, C. L., 2.
Harpoceras.—Rassmuss, H., 3.
Harrogate (Yorks.).—Kendall, P. F., 1 & 2.
Hartwell (Bucks.).—Davies, A. M.
Harvard Seismograph Station.—Woodworth, J. B., 2.
Harz Mts. (Germany). — Bode, A.; Born, A.; Brandes, T., 3; Bruhns, W.; Erdmannsdörffer, O. H., 1 & 2; Spethmann, H.; Uhlig, J., 2; Wünschmann, K.
Hassan district (Mysore). — Sampat Iyengar, P., 1 & 2.
Hatchite.—Solly, R. H., 2.
Haubourdin (France).—Dubois, G.
Haüynite.—Parravano, N.
Hauraki (N.Z.).—Fraser, C.
Haustator.—Toula, F., 2.
Haute-Garonne (France).—Harlé, É., 5; Pâquier, V.
Haute-Savoie.—Chaix, A.
Haute-Vienne (France).—Mouret, G.
Hautes-Fagnes (Luxemburg). — Fraipont, C., 3.
Hawaii I. (Pacific).—Brun, A.; Jaggar, T. A., *fil.*; Komorowicz, M. von, 2.
Haya (Pays-Basque).—Lapparent, J. de, 2.
Hayscastle (Pembroke).—Thomas, Herbert H.
Heavy minerals in Carboniferous.—Bosworth, T. O., 3.
Hecticoceras.—Lemoine, P.; Till, A.
Hedgerley (Bucks).—Treacher, Ll.
Hedjaz (Arabia).—Couyat, J.
Heemskirk (Tasmania).—Ward, L. K., 3 & 4.
Heeseberg (Brunswick).—Höhne, E.
Hegaus (Baden).—Buri, T.
Heimbach (Rh. Prussia).—Dürrfeld, V.
Heinzia.—Joleaud, L.
Hejaz.—Kober, L., 2.
Hekla, Mt. (Iceland).—Pjeturss, H.
Helderberg (N.Y.).—Grabau, A. W., 2.
Heliastræa.—Oppenheim, P.
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Helicoprion.—Karpinsky, A.
Heligoland I.—Wolff, W.
Heliolites.—Bassler, R. S.
Helium in natural gases.—Moureu, C.
Helix.—Halaváts, G. von; Lörenthey, I. von.
Hell Creek Beds.—Gilmore, C. W.
Helopora,—Bassler, R. S.
Hemiaster.—Böse, E., 3; Hawkins, H. L.; Lambert, J.
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Hemigyraspis.—Raymond, P. E.
Hemilepton.—Cossmann, M., 2.
Hemiphragma.—Bassler, R. S.
Hemipristis.—Stefano, Gius de, 2.
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Henley (Oxfordshire).—Hawkins, H. L., 5.
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Herald I. (Arctic Ocean).—Tolmachev, I. P., 2.
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Herefordshire.—Cox, A. H.
Herm (Channel I.).—Bonney, T. G., 5.
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Hesse (Germany). — Assmann, P.; Bauer, M.; Beck, K.; Brandes, T., 2; Drevermann, F., 4; Engelhardt, H., 2; Grupe, O.; Haupt, O.; Heuglein, M., 2 & 4; Herrmann, F., 3; Heykes, K.; Klemm, G.; Krümmer, A., 2; Leppla, H.; Lepsius, R.; Meyer, H. L. F.; Mordziol, C., 3; Schneiderhöhn, H., 2; Steuer, A.; Wedekind, R.; Wegner, T.
Hesse-Nassau.—Engelhardt, H.; Jooss, C. H.; Kinkelin, F., 2; Neuenhaus, H.; Schmidtgen, O.
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Heteronema.—Bassler, R. S.
Heteropora.—Chapman, F., 5.
Heterosite.—Schaller, W. T., 2 & 5.
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Homaloneura.—Meunier, F., 3.
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Homalophlebia.—Meunier, F., 3.
Homburg (Hesse).—Leppla, A.
Homo, Nova Scotia.—Prest, W. H.
——, Peru.—Bingham, H.
——, Mousterian.—Franchet, L.; Martin, H.
——, Neanderthal type cf.—Hughes, T. McK., 2; Keith, A., 1 & 2.
——, Neolithic.—Baudouin, M., 1 & 2; Hue, E.; Leach, A. L., 3; Sinel, J.
——, Palæolithic. — Hunt, A. R., 1 & 2; MacCurdy, G. G.; Munro, R.; Parkyn, E. A.; Schmidt, R. R.
——, Quaternary.—Ameghino, F.; Anthony, R.; Boule, M.; Bullen, R. A.; Carlés, E. de; Fisher, O.; Hrdlička, A.; Hughes, T. McK; Keith, A., 1 & 4; Kormos, T., 12 & 13; MacCurdy, G. G.; Menzel, H.; Moir, J. R., 2 & 3; Parat, A.; Slater, G., 2; Warren, S. H.
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Hönefoss (Norway).—Œyen, P. A., 5

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Huberdeau (Quebec).—Ries, H.
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Hudson River (N. Y.).—Kemp, J. F.
Huelva (Spain).—Hoyer, —.
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Hungary.—Emszt, K.; Gaál, S. von, 2; Gerö, F.; Glinka, K. D.; Halaváts, G. von, 1 & 2; Hillebrand, E.; Horusitzky, H., 1 & 2; Junghann, H.; Kadić, O., 1, 3, & 4; Koch, F.; Kormos, T., 2–9, 11, 16–18; Laczko, D.; László, G. von; Lázár, V.; Liffa, A.; Lóczy, L. von, 2–5; Lörenthey, I. von; Löw, M.; Mauritz, B.; Noszky, E.; Noth, R.; Pálfy, M. von, 1–5; Papp, K. von, 2 & 3; Pávai-Vajna, F. von, 1 & 2; Réthly, A.; Roth von Telegd, K.; Roth von Telegd, L., 1–3; Rozlozsnik, P.; Schafarzik, F., 2; Schréter, Z., 1–3; Siegmeth, K. von; Strömpl, G.; Szilard, B.; Szontagh, T. v.; Täger, H.; Teglás, G., 2; Till, A.; Tuzson, J.; Vadász, M. E., 2; Vinassa de Regny, P., 2–4; Vitalis, S., 1 & 2; Vogl, V., 2; Weiss, A.; *see also* Gömör *&* Transylvania.
Hunsrück (Rh.-Pruss.).—Vierschilling, A.
Hunton Bridge (Herts).—Roberts, G. J.
Hunyaddobra (Transylvania).—Gaál, S. von, 3.
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Hüttchenberg (Saxony).—Hundt, R.
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—— -beds, Mainz Basin.—Wenz, W., 2.
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Hydrocorallinæ, Trias.—Vinassa de Regny, P., 3.
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—— ——, Channel Is.—Bonney, T. G., 5.
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—— ——, Man (I. of).—White, F. W.
—— ——, Mayo.—Gardiner, C. I., 2.
—— ——, New South Wales.—Browne, W. R.
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—— ——, Patagonia.—Quensel, P. D.
—— ——, Pays Basque.—Lapparent, J. de, 2.
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Institut de Paléontologie Humaine, Paris.—Breuil, H.
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——, Canada. — *See* CANADA, Dep. Mines.
——, Cleveland.—Stead, J. E.
——, Colorado.—Singewald, J. T., *fil.*, 4.
——, Cuba.—Cox, J. S., *fil.*; Cumings, W. L.; Hayes, C. W.; Leith, C. K., 3; Little, J. E.; Spencer, A. C.; Woodbridge, D. E.
——, Egypt.—Fourtau, R.
——, Elba.—Capacci, C.; Martelli, A.
——, Falkland Is.—Crook, T., 4.
——, France.—Cayeux, L., 1, 3, & 4; Kerforne, F., 2 & 3; Lemoine, P., 2.
——, Herzegovina.—Katzer, F., 2.
——, Ireland (N.E.).—Cole, G. A. J., 4.
——, Italy (Central).—Ciampi, A.; La Valle, G.
——, Lake Superior Region.—Van Hise, C. R.; Winchell, N. H., 2.
——, Lapland.—Geijer, P., 5.
——, Lombardy.—Calvi, G.
——, Maryland.—Singewald, J. T., *fil.*
——, Minnesota.—Adams, F. S.
——, Missouri.—Crane, G. W.
——. Morocco.—Brumder, E.; Dieckmann, W.; Rubio y Muñoz, C.
——, Mysore.—Balaji Ras, B.; Venkataramaiya, B. N.
——, Nova Scotia.—Fréchette, H.
——, Philippine Is.—*See* PHILIPPINE Is.
——, Piedmont.—Catani, R.
——, Portugal.—Choffat, P., 5.
——, Rhenish Prussia. — Vierschiiling, A.
——, Russia.—Popov, S. P., 2.
——, Sardinia.—Testa, L.
——, Sicily.—La Valle, G.
——, Sweden.—Adan de Yarza, R., 2; Bergeat, A., 2; Fermor, L. L., 2 & 4; Geijer, P., 1, 2, & 3; Kossmat, F.
——, Tennessee.—Gordon, C. H., 2.
——, United States.—Burchard, E. F.; Hayes, C. W., 2.

Iron-ore, Westphalia.—Ahlburg, J.; Bornhardt, W.
—— ——, bog.—Leiningen, W.
—— ——, genesis of oolitic.—Sudry, L.
——, geology & exploration for.—Leith, C. K.
—— ——, origin of.—Herdsman, W. H.; Singewald, J. T., *fil.*, 2; Winchell, N. H., 2.
Ironstone nodules, origin of.—Liesegang, R. E., 5.
Iron sulphides.—Allen, E. T., 1 & 2.
Isastræa.—Clapp, C. H., 3.
Ischyodus.—Bogholubov, N. N., 3; Woodward, A. S., 3.
Ischyromyidæ, Eocene.—Matthew, W. D., 2.
Isère (France).—Blanchard, R.; Jacob, C.; Kilian, C. C. W., 7.
'Isobases,' Norway.—Rekstad, J., 2.
Isocardia.—Cossmann, M., 2.
Isomerism.—Königsberger, J., 7.
Isomicraster.—Lambert, J.
Isomorphism.—Washington, H. S.
——, arsenical pyrite.—Bell, A.
——, crystals and.—Barker, T. V.
——, definition of.—Hlawatsch, C., 5.
Isopleura.—*See* Polyplacophora.
Isopolymorphism.—Jäger, F. M.
Isoseismic curves.—Montessus de Ballore, F. de, 2.
Isostasy.—Hayford, J. F., 1 & 2; Helmert, F. R.; Willis, B.
——, gravity measurements and.—Schiötz, O. E.
——, India.—Crosthwait, H. L.
Isotelus.—Raymond, P. E.
'Isothermal layer.'—Evans, J. W.
Istria.—Parona, C. F.; Schubert, R. J., 6; Waagen, L.
Italy.—Camerana, E.; Cerulli-Irelli, S., 2; Ciampi, A.; Gregorio, A. de, 2; Issel, A., 3 La Valle, G.; Mochi, A.; Panebianco, H.; Pohlig, H.; Stark, M., 2; Stefano, Gius. de, 4; Tilmann, N.
——, earthquakes.—Agamennone, G.
——, radioactive rocks of.—Nasini, R.
——, shore-sands.—Chelussi, I., 2.
——, teaching of geology in.—Gortani, M., 4.
Itasy Massif (Madagascar).—Lacroix, A. F. A., 5.
Ithaca (Greece).—Renz, C., 7.
Ivchenko, A. F., *Obit.*—*See* Krishtafovich, N. I., 3.

Jachal R. (Argentina).—Stappenbeck, R.
Jäderen (Norway).—Œyen, P. A.
Jagonia.—Cossmann, M., 2.
Jamaica.—Cornish, V.
Jambi (Sumatra).—Tobler, A.
Japan.—Bailey, E. B., 2; Davison, C., 4; Goldschmidt, V., 3; Kôzu, S., 1 & 2; Launay, L. de; Omori, F., 2; Yabe, H., 2; Yokoyama, M.
Japan, the Ice-Age and.—Lepsius, R., 3.
——, volcanoes.—Friedländer, I.
Jarbridge Mining District (Nevada).—Schrader, F. C.
Jarosite.—Manasse, E., 2.
Jaspilyte.—Winchell, N. H., 2.
Java (D.E.I.).—Brun, A.; Douglas, E. A.; Douvillé, H., 3; Fennema, R. Martin, K.; Stremme, H.
Jeffreysia.—Kaldhol, H.
Jemtland (Sweden).—Ahlmann, H. W.; Hadding, A., 2; Termier, P., 2.
Jersey.—Sinel, J.
Jhansi District (India).—Silberrad, C. A.
Joachimstal (Bohemia).—Becke, F. J. K., 5.
Jointing in lava.—Romanes, J.
Joint-planes.—Sheldon, P.
Joints, Rhine Valley.—Salomon, W., 3.
Jones, T. R., *Obit.*—*See* Woodward, A. S., 9.
Jones's Creek (Victoria).—Ferguson, W. H.
Jotunheim Glacier (Norway).—Œyen, P. A., 9.
Joufia.—Klinghardt, F.
Jovellania.—Herrmann, F., 3.
Juan Fernandez I.—Quensel, P. D., 2.
Juárez (Chihuahua).—Böse, E., 3.
Judith River Formation.—Knowlton, F. H.; Peale, A. C.
Juglans.—Engelhardt, H.
Julfa (N. Persia).—Bonnet, P.
Julianehaab (Greenland).—Ussing, N. V.
Juncus.—Engelhardt, H., 2.
Juranya.—Schafarzik, F., 2.
Jura (Algäu-Vorarlberg) escarpment, origin of.—Mylius, H., 2; Tornquist, A., 3
——, French.—Schardt, H.
——, Swiss.—Braun, L.; Buxtorf, A., 1, 3, 4, & 5; Combaz, P.; Delhaes, W., 2; Fleury, E.; Grosch, P.; Schardt, H., 4.
Jura I. (Hebrides).—Peach, B. N., 5.
Jurassic, Alaska.—Atwood, W. W.; Martin, G. C., 1 & 2; Moffit, F. H., 2.
——, Algeria.—Joleaud, L.
——, Bernese Alps.—Seeber, H.
——, Caucasus.—Oswald, F.; Papp, K. von.
——, France.—Fabre, G.; Rouyer, C., 1 & 2.
——, Franco-Italian Alps.—Kilian, C. C. W., 10.
——, Galicia.—Wójcik, K.
——, Germany.—Burre, O.; Kolb, R.; Wepfer, E.
——, German East Africa.—Hennig, E., 2.
——, Himalayas.—Uhlig, V. K.
——, Hungary.—Till, A.
——, Madagascar.—Lemoine, P.
——, Mexico.—Burckhardt, C.
——, Morocco.—Gentil, L., 2.
——, New Zealand.—Böhm, G.

Jurassic, Pacific margins.—Dacqué, E.
——, Poland.—Siemiradzki, J.
——, Rumania.—Simionescu, I., 2.
——, Russia.—Prigorovskiĭ, M.
——, Uri.—Staub, W.
——, Vancouver.—Clapp, C. H., 3.
——, Vorarlberg.—Mylius, H.
——, Yorkshire.—Richardson, L., 5.
——, coordination of French.—Collot, L., 5.
——, correlation of Tasmanian & Victorian.—Chapman, F., 9.
—— flora, Yorkshire.—Seward, A. C.
——, formation of the German.—Fischer, E.
——, marine provinces of.—Uhlig, V. K., 2.
Juvavites.—Burckhardt, C., 2.

Kacch (Baluchistan).—Das-Gupta, H. C.
Kadur (Mysore).—Sampat Iyengar, P.; Slater, H. K.
Kahlenberg (Vienna).—Toula, F., 4.
Kaiserstuhl (Aargau).—Lais, R.; Söllner, J., 1–3.
Kaiser-Wilhelms-Land (New Guinea).—Friederici, G.; Reiber, J.; Sapper, K. T.; Sieberg, A.
Kajanto (Transylvania).—Balogh, E.
Kakhetia (Caucasus).—Ryabinin, A. N., 3.
Kalahari (South Africa).—Range, P.
Kalecsinszky, A. von, *Obit.*—*See* Ilosvay, L. von.
Kalgoorlie (W. Austral.). — Thomson, J. A.
Kaluga (Russia).—Dimo, N.; Savarenskii, F. P.
Kalusz (Galicia).—Kreutz, S., 3.
Kalymnos (Ægean Sea).—Millosevich, F., 2; Stefani, C. de, 4.
Kamenka (Kharkov). — Thomas, H. Hamshaw.
Kames, relations of eskers and.—Gregory, J. W., 4.
Kamp Valley (Lr. Austria).—Grengg, R.
Kankar, Mysore.—Balaji Rao, B.
Kansan Drift-sheet, Missouri R.—Keyes, C. R., 5.
Kansas (U.S.A.). — Campbell, M. R.; Merrill, G. P., 2; Moodie, R. L., 5; Sternberg, C. H.; Todd, J. E., 2; Yates, J. A.
Kantia.—Pia, J. von.
Kaolin.—Johnsen, A.; Tschernobaeff, D.; Stremme, H., 2; Ries, H.
Kaolinite.—Butler, F. H.; Veiberg, S.
Kaolinization.—Linstow, O. von, 4.
—— by peat-bogs.—Endell, K.
Karadagh (Crimea).—Popov, S. P.
Karakoium (Dobrudsha). — Protopopescu-Pake, E. I.
Karakoram (Kashmir).—Novarese, V., 3.
Kargala (Orenburg).—Ryabinin, A. N.
Käringbricka (Sweden).—Quensel, P. D., 3.
Karmö (Bergen).—Holmboe, J.
Karroo Beds.—Broom, R., 9.
—— Reptilia, British Museum.—Broom, R., 2.
—— System, Katanga.—Grosse, E.
—— ——, Transvaal.—Molengraaff, G. A. F.
Karsts.—Grund, A.; Reizer, N.
Kashmir.—Hayden, H. H.; Middlemiss, C. S.; Novarese, V., 3; Oliver, D. G.; Reed, F. R. C., 4; Seward, A. C., 4.
Kasselian, Mainz Basin.—Dollfus, G. F., 2.
Katanga (Belgian Congo).—Andrimont, R. d', 2 & 3; Cesàro, G., 4; Grosse, E.; Robert M.; Stutzer, O.
Katschberg (Salzburg).—Becke, F. J. K., 6; Heritsch, F., 10.
Kauri-gum mining, New Zealand.—Penrose, R. A. F.
Kavicsosdomb (Hungary).—Kormos, T., 6.
Kawhia (N.Z.).—Böhm, G.
Kazan (Russia).—Mazarovich, A., 1 & 2.
Kenai Formation.—Atwood, W. W.
Kecskemét (Hungary).—Ballenegger, R.
Keewatin (Ontario).—Whiteaves, J. F.
—— System, Ontario.—Moore, E. S., 2.
Kéli Plateau (Caucasus).—Timofeev, K. I., 3.
Kellerwald (Germany).—Assmann, P.; Wedekind, R.
Kelloway Rock, Villány.—Till, A.
Kellya.—Cossmann, M., 2.
Kempsey district (N.S.W.). — Woolnough, W. G.
Kenai Flora, Alaska.—Hollick, A.
Kendal district (Westmorland).—Garwood, E. J.
Kenese (Hungary).—Halaváts, G. von.
Kennack gneiss, Cornwall.—Flett, J. S., 4.
Kent.—Bolton, H.; Chandler, R. H., 2 & 3; Dibley, G. E., 1, 2, & 3; Kennard, A. S., 2; Leach, A. L., 1 & 2; Priest, S.; Strahan, A.; Whitaker, W., 3.
Kent Coalfield.—Arber, E. A. N., 6; Lamplugh, G. W., 9; *see also* Kent Coal Concessions.
Kent's Cavern (Torquay).—Hunt, A. R., 1 & 2; Parkyn, E. A.
Kentucky (U.S.A.).—Fenneman, N. M., 2; Gardner, J. H.; Kindle, E. M., 2.
Keramohalite.—Uhlig, J., 3.
Keratophyre, Argentina.—Stieglitz, O.
——, Greece.—Ktenas, K. A.
——, Pembroke.—Thomas, Herbert H.
Kerka Valley (Dalmatia).—Schubert, R. J.
Kern R. district (California).—Anderson, F. M.
Kerry County (Ireland).—McHenry, A.

Kertch Peninsula (Crimea).—Popov, S. P., 2.
Keston (Kent).—Dibley, G. E., 1 & 2.
Keuper, Aargau.—Brändlin, E.
——, Cheshire.—Maidwell, F. T., 3.
——, Charnwood.—Bosworth, T. O., 4.
——, Luxemburg.—Jérome, A., 3.
——, Nottinghamshire & Lincolnshire.—Smith, Bernard, 3.
——, Warwickshire.—Matley, C. A.
——, Würtemberg.—Weiglin, M.
——, basement bed of.—Maidwell, F. T., 2.
—— marl, origin of.—Finckh, A.
Kharga (Egypt).—Beadnell, H. J. L., 2; Grabham, G. W., 2; Huntington, E.
Kharkov Gov. (Russia).—Thomas, H. Hamshaw.
Khartum (Egypt).—Andrews, C. W., 2.
Kiirunavaara (Norrbotten).—Geiger, P., 1 & 2; Hlawatsch, C., 3; Sjögren, O.; Sundius, N.
Kilbride Peninsula (Mayo).—Gardiner, C. I., 2; Woodward, H.
Kilebu (Norway).—Œyen, P. A., 13.
Kilwa Kivindje (German East Africa).—Böhm, J., 4.
Kimberley district (W. Austral.).—Glauert, L., 3.
Kimmeridgian, Kent borings.—Lamplugh, G. W., 9.
——, Switzerland.—Delhaes, W., 2.
——. *See also* Jurassic.
Kincardineshire.—Barrow, G.; Campbell, R., 1–4; Evans, J. W., 5; Peach, B. N., 4; Traquair, R. H., 4.
King County (Washington).—Evans, G. W.
King I. (Bass Strait).—Chapman, F., 5.
Kinmont (Cumberland).—Smith, Bernard, 2.
Kinta (Federated Malay States).—Scrivenor, J. B., 2.
Kintyre (Scotland).—Peach, B. N., 5.
Kinzigite.—Ugolini, R.
Kiona (Greece).—Frech, F., 2.
Kirkby Lonsdale district (Westmorland).—Garwood, E. J.
Kirtlington (Oxon.).—Allorge, M. M.
Kissármás (Hungary).—Loczy, L. von, 2 & 4.
Klausen (Tyrol).—Ohnesorge, T.
Klausenburg (Transylvania).—Balogh, E.
Klikia.—Jooss, C. H.; Wenz, W.
Klinozoisite.—Kretschmer, F.
Klip R. Valley (Transvaal).—Humphrey, W. A., 2 & 4.
Klondike (Canada).—Cairnes, D. D., 4.
Knapdale (Argyllshire).—Peach, B. N., 5.
'Knollengneis.'—Sander, B., 3.
'Knollensteine.'—Linstow, O. von, 3.
Knorripteris.—Bertrand, P., 4.
Knowltonella.—Berry, E. W.
Kochia.—Born, A.
Kócs (Hungary).—Liffa, A.
Kodurite Series.—Fermor, L. L., 3.
Kodiak I. (Alaska).—Fry, W. H.
Kodru-Moma (Hungary).—Szontagh, T. von.
Königswart (Bohemia).—Köchlin, R., 1 & 3.
Köpinge Sandstone, Terebelloids from.—Grönwall, K. A.
Köthen (Anhalt).—Ziervogel, H.
Koikkjokk Mt. (Sweden).—Tegengren, F. R.
Koiloskiosaurus.—Huene, F. von, 2.
Koken, E. von, *Obit*.—*See* Bauer, M., 3; Huene, F. von, 6.
Kolbermoor (Bavaria).—Rosati, A.
Kolozsvar.—*See* Klausenburg.
Komárnik (Hungary).—Schréter, Z., 5.
Komarnók (Hungary).—Noth, R.
Kongahu Series (New Zealand).—Webb, E. J. H.
Koninckocidaris.—Jackson, R. T.
Koninckopora.—Lee, G. W.
Kootenay, East (B.C.)—Schofield, S. J.
——, West (B.C.).—Drysdale, C. W.
Kophinoceras.—Gortani, M.
Kopjes, origin of.—Falconer, J. D., 2.
Kopparberg (Sweden).—Tegengren, F. R., 2.
Korkite.—Butler, B. S., 3.
Kornerupine.—Lacroix, A. F. A., 14.
Körös (Hungary).—Papp, K. von, 3.
Kos (Ægean Sea).—Millosevich, F., 2.
Kossmatia.—Lemoine, P.
Kragerite, Norway.—Watson, T. L., 2.
Krain (Austria).—Knett, J.
Krakatau (Dutch East Indies).—Brun, A.
Krassó-Szörény (Hungary).—Halaváts, G., 2; Koch, F.; Roth von Telegd, L.; Schafarzik, F., 2; Schréter, Z., 2 & 5.
Kreischeria.—Pocock, R. I.
Krems (Lower Austria).—Abel, O., 4; Angerer, P. L.
Kritosaurus.—Brown, B.
Krndija Mts. (Croatia).—Kišpatič, M.
Kroukov meteorite.—Ghrishchinskiĭ, P. I.
Kuban (Russia).—Bogdanovich, K. I.; Charnotzkii, S.; Gubkin, I. M.
Kumaon Himalaya (India).—Grinlington, J. L.
Kundelungu Plateau (Belgian Congo).—Robert M., 2.
Kundelungu System.—Passau G., 2; Robert M.
Kurravaara (Norrbotten).—Sundius, N. 2.
Kusjkin I. (Arctic).—Backlund, H.
Kvarnby (Scania).—Schnittger, B.
Kyanite-schist, Croatia.—Kišpatič, M.
—— ——, Rhenish Prussia.—Brauns, R., 2; Hopmann, M.
Kylite, W. Scotland.—Tyrrell, G. W.
Kyphoclonella.—Kolb, R.

La Hève, Cape (Normandy).—Nopcsa, F.

Laacher See (Rhenish Prussia).—Brauns, R., 1, 2, & 5; Hopmann, P. M.
Labechia.—Kirkpatrick, R., 5.
Labidura.—Burr, M.
Labradorite.—Hutchinson, A., 4.
Laccolites, Euganean Hills.—Stark, M., 2.
Ladakh (Kashmir).—Oliver, D. G.
Ladock (Cornwall).—Thomas, I.
Ladoga (Russia).—Berghell, H.; Sederholm, J. J., 7.
Ladysmith (Natal).—Arber, E. A. N.; Hatch, F. H.; Woodward, A. S.
Lævicardium.—Böse, E.; Cossmann, M., 2.
Lagena.—Dervieux, E.; Silvestri, A.; Vadász, M. E., 2.
Lagenostoma.—Prankerd, T. L.
Laharpeia.—Ravagli, M.
Lahn-Dill (Nassau).—Singewald, J. T., *fil.*, 2.
Lahn R. (Germany).—Ahlburg, J.
Lahusen, J., *Obit.*—*See* Anon., 9.
Lajonkairia.—Cossmann, M., 2.
Lake-basins, Alpine.—Lugeon, M., 4.
Lake-District, English.—Garwood, E. J.
Lake-dwellings, Italy.—Munro, R.
—— -shore deposits.—Bagg, R. M., *fil.*
—— -surveys. — Halbfass, W., 2; Jentzsch, C. A., 1 & 3.
—— terraces, Alpine.—Lautensach, H.
Lake City (Colo.).—Irving, J. D., 2.
Lakes.—Jentzsch, C. A., 5.
——, Auvergne.—Glangeaud, P., 6.
——, Bessarabia.—Kler, V. O., 2.
——, Cumberland. — Smith, Bernard, 2.
——, Donegal.—Wright, W. B.
——, Finland.—Hänninen, K.
——, Germany.—Jentzsch, C. A., 1, 4, & 6.
——, Holstein.—Wegemann, G.
——, India (Central Provinces). — La Touche, T. H. D.
——, Italy.—Meli, R., 2.
——, Kashmir.—Oliver, D. G.
——, Mississippi Quaternary.—Shaw, E. W.
——, New Brunswick.—Ganong, W. F.
——, New York.—Fairchild, H. L.
——, Rumania.—Pascu, R.
——, Switzerland. — Lautensach, H.; Mühlberg, F., 2.
——, finger-.—J. W. W., 2.
——, geochemistry of.—Clarke, F. W.
——, seiches.—Halbfass, W.
——, submerged forests in.—Wright, W. B., 4.
——, temperature of.—Aufsass, O. F.; Jentzsch, C. A., 2.
——, vibrations of.—Endroes, A.
——, water of.—Gillet, C., 3.
Lamellibranchia, Carboniferous.—Girty, G. H.; Hind, W., 2; Jackson, J. W., 4; Richthofen, F. von; Vadász, M. E.; Vernon, R. D.
Lamellibranchia, Cretaceous.—Böhm, J.; Böse, E., 2 & 3; Canal, J., 2; Clark, W. B.; Herrick, C. L., 2; Johnson, D. W.; Krenkel, E.; Leriche, M., 3; Lichkov, B. L.; Papp, K. von; Pâquier, V.; Parona, C. F., 2-4; Peron, A.; Schlagintweit, O.; Toucas, A., 1 & 2; Vadász, M. E.; Woods, H., 1-3.
——, Devonian. — Born, A.; Gortani, M.; Kindle, E. M., 4; Leriche, M.; Richthofen, F. von; Vinassa de Regny, P.; Zamyatin, A. N., 3.
——, Eocene.—Cotter, G. de P.; Oppenheim, P.; Weaver, C. E., 2.
——, Jurassic.—Böhm, G., 2; Clapp, C. H., 3; Fucini, A., 2; Haas, O.; Lichkov, B. L.; Papp, K. von; Parona, C. F.
——, Mesozoic.—Böhm, G.
——, Miocene. — Andrusov, N., 1, 2; Canavari, I.; Cossmann, M., 2; Guppy, R. J. L., 1 & 2; Halaváts, G. von; Lörenthey, I. von; Newton, R. B., 2; Sintzov, I. T., 2; Weaver, C. E., 2.
——, Permian.—Girty, G. H., 2; Herrick, C. L.
——, Pliocene.—Teisseyre, W.; Tesch, P.; Toula, F.
——, Quaternary.—Dall, W. H.; Kaldhol, H.; Kormos, T., 6, 10, & 18; Nelli, B.; Nordmann, V.; Weiss, A.
——, Silurian. — Leriche, M.; Priem, F.; Steinmann, J. H. C. G. G., 7; Whiteaves, J. F.
——, Tertiary. — Böse, E.; Brown, A. P., 2; Chapman, F., 4 & 5; Depéret, C., 4; Kinkelin, F.; Oppenheim, P., 2; Vogl, V.
——, Trias.—Burckhardt, C., 2; Rassmuss, H., 3; Stefano, Giov. di; Tommasi, A.; Wittenburg, P. von.
——, Wealden.—Richthofen, F. von.
——, classification of.—Douvillé, H., 5; March, M. C.
Laminarites.—Engelhardt, H.; Yakovlev, S. A.
Lamna.—Savchenko, A. S.; Stefano, Gius. de, 2 & 3; Woodward, A. S., 3.
Lampedusa I. (Mediterranean).—Nelli, B.
Lamprophyres, Ross-shire.—Peach, B. N., 4.
Lancashire.—Hewitt, W., 1 & 2; Jackson, J. W., 1-4; Platt, S. S.
Lancefieldian, Victoria.—Hall, T. S.
Land-connexions, distribution of animals & former.—Scharff, R. F.
Land-ice, Glacial Drift and.—Crook, T.; Deeley, R. M., 2; Lamplugh, G. W., 2.
Landeck (Tyrol).—Hammer, W.
Landelies (Hainault).—Burton, R. C.; Delépine, G., 2 & 3; Fourmarier, P. 7.
Landenian, Belgium.—Cornet, J., 4.
Landes (France). — Dubaleu, P. E.; Harlé, E.

Landsborough (Victoria).—Dunn, E. J., 6.
Landslips, Croatia.—Poljak, J.
——, Dorset.—Woodward, H. B., 4.
——, I. of Wight.—Chandler, R. H.
——, Ticino.—Schardt, H., 2.
——, Turtle Mountain.—Daly, R. A., 3.
——, Wyoming.—Blackwelder, E., 2.
Lang (California).—Eakle, A. S., 2.
Långbergsoda (Åland).—Tanner, V.
Langdon Mines (Victoria).—Dunn, E. J., 10; Whitelaw, H. S.
Langjökull (Iceland).—Wunder, L.
Langogne (Lozère).—Fabre, G.
Lanza, Piano di (Carnic Alps).—Gortani, M., 2; Vinassa de Regny, P., 8.
Lapidosaurus.—Huene, F. von, 2.
Lapland.—Bergström, E.; Fermor, L. L., 4; Geijer, P., 2 & 5.
Lapworthura.—Sollas, I. B. J.
Laramie Formation, Kansas.—Sternberg, C. H.
Lari (Tuscany).—Andreucci, A.
Larix.—Krishtafovich, N. I.
Laterite, Ireland (N.E.).—Cole, G. A. J., 4.
——, W. Australia.—Simpson, E. S.
——, connotation of term.—Dittler, E., 3.
——, formation of.—Vageler, P.
Lateritic earth.—Glinka, K. D.
Lateroflustrellaria.—Brydone, R. M.
Latidorsella.—Pervinquière, L.
Latium (Italy).—Agamennone, G.
Lattengebirge (Bavaria).—Lebling, C.
Launceston (Cornwall).—Reid, C., 3.
Lauenburg (Germany). — Stoller, J.; Franke, A.
Laufenburg (Aargau).—Niggli, P., 3.
Laumontite.—Dürrfeld, V.
Launde (Leicestershire).—Horwood, A. R., 3.
Laundos (Portugal).—Priem, F.
Laurus.—Engelhardt, H.; Krishtofovich, A. N., 4.
Lauterbrunnen Valley (Switzerland).—Seeber, H.
Lavas.—Sabatini, V., 3.
——, Etna.—Franco, S. di; Ponte, G.
——, Mexico.—Wittich, E.
——, Réunion I.—Lacroix, A. F. A., 4.
——, concentric jointing in.—Romanes, J.
——, converted into ash.—Perret, F. A.
LAVIS, H. J. J., bibliography. — *See* Lavis, H. J. J.
Lawrence County (Illinois).—Blatchley, R. S., 2.
Lazulite.—Lacroix, A. F. A., 20.
Lea Valley.—Warren, S. H.
Lead-ore, Baden.—Schumacher, F.
——, Mexico.—Van Horn, F. R.
——, Montana.—Hayes, C. W., 2.
——, Morocco.—Rubio y Muñoz, C.
——, Oklahoma.—Snider, L. C.
——, Rhodesia.—Zealley, A. E. V.
——, Siegen.—Bornhardt, W.
Lead-ore, United States.—Richards, R. W.; Siebenthal, C. E.
——, Zeehan.—Twelvetrees, W. H., 2.
—— associated with uranium, geological time and.—Holmes, A.
Lead-silicates.—Kraus, E. H.
Leadville (Colorado).—Butler, G. M.; Moore, C. J.
Leaia.—Stainier, X., 3.
Leanchoilia.—Walcott, C. D.
Leavad (Caithness).—Tait, D.
Lebach (Rhenish-Prussia).—Liesegang, R. E., 5.
Lebanon Mt. (Syria).—Erasmo, G. d'.
Lecanella.—Kolb, R.
Lecce (Apulia).—Bassani, F.; Misuri, A.
Lecco (Lombardy).—Cermenati, M., 2; Novarese, V.; *see also* Italy, Soc. geol.
Leda.—Toula, F.
LEEDS, C. E., *Obit.*—*See* Anon., 10.
Lefroyella.—Schrammen, A.
Leghorn.—*See* Livorno.
Leguminosites.—Engelhardt, H., 2.
Leicestershire.—Bennett, F. W., 1 & 2. Bosworth, T. O., 4; Horwood, A. R., 2, 3, & 5.
Leinster (Ireland).—Fletcher, A. L.
Leioclama.—Lee, G. W.
Leiodorella.—Kolb, R.
Leiopteria.—Born, A.; Kindle, E. M., 4.
Leiospongia.—Vinassa de Regny, P., 2 & 3.
Leiostracosia.—Schrammen, A.
Leith Hill (Surrey).—Leighton, D.
Leitha Limestone, Lr. Austria.—Schaffer, F. X.
Leipzig (Saxony).—Jacob, K. H.
Lens (Nord).—Barrois, C.
Lenticeras.—Pervinquière, L.
Leopardus.—Kormos, T., 5.
Lepas.—Canavari, I.
Leperditia.—Kindle, E. M., 4; Lee, G. W., 2.
Lepidechinoides.—Olsson, A.
Lepidechinus & *Lepidocentrus.*—Jackson, R. T.
Lepidocidaris.—Jackson, R. T.
Lepidocyclina.—Cotter, G. de P.; Douvillé, H., 2; Fabiani, R.; Rutten, L.
Lepidodendrites.—Fliche, P.
Lepidodendron.—Arber, E. A. N., 4, 7, & 9; Vernon, R. D.
Lepidolite.—Baumhauer, H., 4.
Lepidophyllum.—Arber, E. A. N., 3.
Lepidostrobus. — Arber, E. A. N., 3; Vernon, R. D.
Lepontine Series.—Termier, P., 3 & 4.
Leptæna.—Grosch, P., 2.
Leptænisca.—Kindle, E. M., 4.
Leptagonia.—Assmann, P.
Leptis.—Cockerell, T. D. A., 2.
Leptoceras.—Joleaud, L.
Leptodomus.—Leriche, M.
Leptophragma.—Schrammen, A.

Leptophyllia.—Oppenheim, P.
Leptoplastus.—Holtedahl, O.
Leptospermites.—Krishtofovich, A. N., 4.
Leptostrophia.—Kindle, E. M., 4.
Leptotrypa.—Bassler, R. S.
Lesangeana.—Fliche, P.
Lessine Alps (Italy).—Fabiani, R., 3.
Leszczyny (Galicia).—Rychlicki, J.
Letchworth (Herts).—Hill, W..
Lettin (Merseburg).—Wüst, E.
Letton Grits & Conglomerates.—Cox, A. H.
Leucite.—Colomba, L.; Rinne, F., 5.
Leucite-basanite.—Rack, G.
—— -rocks, Wyoming.—Schultz, A. R.
—— -tephrite.—Rack, G.
Leucite Hills (Wyoming).—Schultz, A. R.
Leucitophyre, Kaiserstuhl.—Söllner, J., 3.
Leukerbad (Valais).—Lugeon, M., 3.
Level, changes of.—Gagel, C.; Geer, G. de, 2.
LÉVY, AUGUSTE M., *Obit.*—*See* Anon., 11; Barrois, C., 4; Flett, J. S.; & Winchell, A. N.
Lewis (Hebrides).—Peach, B. N., 3.
Lewisian gneiss.—Peach, B. N., 4.
Lias, Aargau.—Brändlin, E.
——, Algeria.—Joleaud, L.
——, Devon & Dorset.—Woodward, H. B., 4.
——, Germany.—Brandes, T., 1, 3, & 4; Höhne, E.; Schalch, F.
——, Greece.—Renz, C., 3.
——, Indo-China.—Mansuy, H.
——, Kent borings.—Lamplugh, G. W., 9.
——, Lombardy.—Rassmuss, H., 2 & 3.
——, Luxemburg.—Jérome, A., 5.
——, Poland.—Siemiradzki, J.
——, Portugal.—Renz, C., 6.
——, Somerset.—Reynolds, S.H.
——, Switzerland.—Delhaes, W., 2; Seeber, H.
——, Tyrol.—Haas, O.
——, Venetian Alps.—Dal Piaz, G.
——, Wales (S.).—Strahan, A., 2.
——. *See also* Charmouthian, &c.
Liberia (W. Africa).—Hatch, F. H., 4.
Libocedrus.—Engelhardt, H.; Kafka, J.
Libya Italica.—Vinassa de Regny, P., 9.
Libyan Desert (Egypt).—Walther, J. K., 2.
Lichas.—Herrmann, F., 3; Kindle, E. M., 4.
Lichenalia.—Bassler, R. S.
Liebea.—Richthofen, F. von.
Liége (Belgium).—Anten, J., 3; Fourmarier, P., 9; Halet, F.; Lohest, M., 1, 3, 5, 6, & 8; Lorié, J.; Rauw, H. de, 2; Renier, A.; Tetiaev, M.
Liévin (Pas-de-Calais).—Barrois, C.; Bertrand, P., 2; Crépin, A.; Gosselet, J. A. A., 6 & 10; Leriche, M.
Liffey R. (Ireland).—Cole, G. A. J., 2.
Lignite, Anhalt.—Ziervogel, H.
——, Austria (Lr.).—Petrascheck, W., 2.
——, Bohemia.—Kafka, J.
——, Hungary.—Papp, K. von, 3.
——, Liguria.—Taramelli, T.
——, Otago (N.Z.).—Macdonald, A. G.
——, Posen.—Jentzsch, C. A., 9.
——, Rhine district.—Fliegel, G.; Holzapfel, E.
——, Saxony.—Räfler, F.
——, Transylvania.—Schumacher, F., 2.
——, United States.—Campbell, M. R.
——, constitution of.—Glöckner, F., 2 & 3.
——, origin of.—Potonié, H.
Liguria (Italy).—Chelussi, I., 5; Crema, C.; Issel, A., 2; Taramelli, T.
Lille (Nord).—Pagniez, —.
Lillooet (B.C.).—Camsell, C., 2.
Lima.—Böse, E., 2; Chapman, F., 5; Fucini, A., 2.
Limatula.—Girty, G. H.
Limax.—Lörenthey, I. von.
Limay Valley (Argentina).—Ugolini, R., 3.
Limburg (Belgian & Dutch).—Klein, W. C.
Limburg an der Lahn (Rhenish Prussia).—Danckers, R.
Limburgite.—Böse, W.; Romanes, J.; Skeats, E. W.
Lime, Mysore.—Balaji Rao, B.
——, phosphate of.—Gillet, C., 2.
Limea.—Canavari, I.; Haas, O.
Limestone, Illinois, soil-fertilizing.—Van Horn, F. B.
——, Sweden.—Hedström, H.
——, Transvaal.—Hall, A. L., 4.
——, Victorian brecciated.—Chapman, F., 7.
——, chemical analyses.—Chapman, M. B.
——, coralline.—Fryer, J. C. F.
—— metamorphosed by volcanic tuff.—Dublancq-Laborde, —.
——, minerals of bituminous.—Balogh, E.
——, mottling in.—Sargent, H. C.
Limestone Creek (Victoria).—Chapman, F., 10.
Limnæa.—Halaváts, G. von; Jooss, C. H., 2; Kennard, A. S.; Kormos, T., 8.
Limnocardium.—Halaváts, G. von; Lörenthey, I. von.
Limnophysa.—Kormos, T., 8; Jooss, C. H., 2.
Limnoscelis.—Williston, S. W., 2.
Limoges (Haute-Vienne).—Mouret, G., 3.
Limonite, Servia.—Wendeborn, B. A.
Limopsis.—Böse, E.
Limoptera.—Richthofen, F. von.
Lincolnshire.—Smith, Bernard, 3.
LINDSTRŒM, G., *Obit.*—*See* Holm, G.

Lindved (Sweden).—Rosén, N.
Linga.—Cossmann, M., 2.
Lingula.—Johnson, D. W.; Kindle, E. M., 4; Steinmann, J. H. C. G. G., 7; Wittenburg, P. von.
Lingula Flags, Merionethshire.—Lake, P.
Lingulella.—Walcott, C. D., 2 & 4.
Lingulepis.—Steinmann, J. H. C. G. G., 7.
Lingulina.—Schmidle, W.
Linlithgow.—Gordon, W. T., 3; Macgregor, M.; Steuart, D. R.
Linopteris.—Carpentier, A., 4; Lignier, O.
Lioclema & *Lioclemella.*—Bassler, R. S.
Liogryphea.—Douvillé, H.
Lions, Gulf of.—Thoulet, J., 2.
Liopistha.—Herrick, C. L., 2.
Liopleurodon.—Bogholubov, N. N.
Liostrea.—Douvillé, H.
Liparite, Samos.—Butz, J.
——, Tuscany.—Panichi, U.
Lippe (Germany).—Mestwerdt, A.
Liskeard (Cornwall).—Bowman, H. L.
Lissa (Posen).—Behr, J., 2.
Lissoceras.—Lemoine, P.
Litharæa.—Oppenheim, P.
Lithium.—Anderson, A. A.
——, crystallography of chlorate of.—Bruhl, H.
Lithoderma.—Engelhardt, H.
Lithodomus.—Vadász, M. E.
Lithoglyphus.—Kormos, T., 6.
Lithology.—*See* Petrography.
Lithomarge.—Cole, G. A. J., 4.
Lithostrotion.—Garwood, E. J.
Lithothamnium.—Oppenheim, P.
Litsæa.—Engelhardt, H.
Little Mattie Mine (Colorado).—Mrazek, L.
Littleton (New Hampshire).—Lahee, F. H., 3.
Littorina depression, W. German coast.—Gagel, C.
—— -fauna, East Prussia.—Hess von Wichdorff, H., 6; Menzel, H., 2.
Lituonella.—Schubert, R. J., 4.
Liverpool (Lancs.).—Hewitt, W.
Liverpool Range (N.S.W.).—Benson, W. N.
Livonia.—Montessus de Ballore, F. de, 9.
Livornese Mts. (Tuscany).—Stefani, C. de.
Livorno (Tuscany).—Campana, D. Del.
Lizard (Cornwall).—Flett, J. S., 4; Russell, A., 2.
Llanaber (Merioneth).—Osborn, T. G. B.
Llanes (Spain).—Bertrand, L., 8.
Llangollen (Denbighshire).—Wills, L. J.
Llano-Burnet Region (Texas).—Paige, S., 3.
Loanda (Portuguese W. Africa).—Freire de Andrade, A. A.
Locarno (Ticino).—Craveri, M.
Loch Awe Group, Argyll.—Peach, B. N., 5.
Loczia.—Vinassa de Regny, P., 2.
Loddon Valley (Victoria).—Dunn, E. J., 8.
Lodes, Cornwall.—Jennings, J.
——, W. England.—Collins, J. H., 3.
Loèche.—*See* Leukerbad.
Lœss, Argentina.—Carlés, E. de.
——, Germany (N.).—Werth, E.
——, Hungary.—Weiss, A.
——, Missouri River.—Keyes, C. R., 5.
——, Pampas.—Rovereto, G.
——, Taunus Range.—Gerth, H.
——, Transylvania.—Pavai-Vajna, F. von, 3.
——, definition of term.—Shimek, B., 4.
Lœtschberg Tunnel (Bernese Alps).—Saunders, W. L.
Lofoden Is. (Norway).—Vogt, J. H. L., 2.
Logan-stone, Argentina.—Bertrand y Cavaller, F.
Loir-et-Cher (France).—Filliozat, M., 3.
Loire (France).—Depéret, C., 3; Kerforne, F., 2; Welsch, J., 2.
Lookout Mt. (Alabama).—Evans, A. W.
Löllingite, isomorphism and.—Beutell, A.
Lomatia.—Engelhardt, H.
Lomatopteris.—Lignier, O.
Lombardy (Italy).—Airaghi, C.; Bussandri, G.; Cacciamali, G. B.; Calvi, G.; Cermenati, M., 2; Franchi, S.; Novarese, V.; Patrini, P., 1 & 2; Porro, C.; Rassmuss, H., 2 & 3; Roccati, A., 2; Stella, A.; Taramelli, T., 4; Tommasi, A., 1–3.
Lomentarites.—Fliche, P.
Lonar Lake (India).—La Touche, T. H. D.
Lonchocephalus.—Walcott, C. D., 4.
Lonchopteris.—Vernon, R. D.
London Basin, alkaline water.—Thresh, J. C.
—— ——, borings.—Strahan, A., 3.
London Clay, Berks.—Lupton, H. R.
—— ——, Kent.—Leach, A. L.
—— ——. *See also* Eocene.
Long Row (Edinburgh).—Day, T. C.
Longbottom, A., *Obit.*—*See* Falconer, J. D., 4.
Longmyndian.—Cox, A. H.
Lopha.—Douvillé, H.
Lophiaspis.—Depéret, C.
Lophiodon.—Hansemann, D. von.
Lophiodontidæ.—Depéret, C.
Lophiomeryx.—Kinkelin, F.
Lophoctenium.—Delgado, J. F. N.
Lophophyllum.—Garwood, E. J.; Girty, G. H.
Lorandite.—Rogers, A. F., 2 & 6.
Lord Nelson North Mine (Victoria).—Dunn, E. J., 5.
Lorenz, T., *Obit.*—*See* Wilckens, O.
Lorenz von Liburnau, J. R., *Obit.*—*See* Tietze, E. E. A.
Lorges (Côtes-du-Nord).—Kerforne, F., 3.

Lorica.—Hull, A. F. B.
Loricula.—Withers, T. H.
Loripes & *Loripinus.*—Cossmann, M., 2.
Lorraine (French).—Fliche, P.
—— (German).—Van Werveke, L., 4.
Los Is. (W. Africa).—Lacroix, A. F. A., 2 & 16.
Lossiemouth (Elgin).—Hüne, F. von, 5.
Lothians (Scotland).—Carruthers, R. G.
Louisiana (U.S.A.).—Clapp, F. G.; Harris, G. D., 1 & 3; Hopper, W. E.
Lovate R. district (Russia).—Vasilievskiĭ, N. I.
Lovenechinus.—Jackson, R. T.
Loxocardium.—Cossmann, M., 2.
Loxonema.—Dietz, E.; Herrmann, F., 3; Kindle, E. M., 4; Salopek, M.; Stefano, Giov. di.
Loxonematidæ.—Longstaff, J.
Loxopteria.—Born, A.
Lozère (France).—Fabre, G.
Lualaba (Belgian Congo).—Cornet, J., 5.
Lübeck (Germany).—Spethmann, H., 2.
Lublinite.—Lang, R.
Lucero (New Mexico).—Keyes, C. R., 3.
Lucina.—Böse, E.; Cossmann, M., 2; Toula, F., 1 & 2.
Lucinopsis.—Cossmann, M., 2.
Luçon (Vendée).—Grossouvre, A. de.
Ludwig Mine (Nevada).—Jones, J. C.; Rogers, A. F., 4.
Ludwigite.—Schaller, W. T., 2 & 11.
Ludwigshöhe (Rhenish Bavaria).—Bähm, J., 5.
Lugano (Switzerland).—Salomon, W., 5.
——, Lake of (Switzerland).—Reich, H.
Lugarite.—Tyrrell, G. W.
Lugnano (Tuscany).—Ugolini, R., 2.
Lulu Kop (Transvaal).—Hall, A. L., 4.
Lunatia.—Böse, E.
Lundy I.—McLintock, W. F. P.
Lüneburg (Hanover).—Stille, H., 2; Wahnschaffe, F.
Lungau (Salzburg).—Waagen, L., 3.
Lunulicardium.—Kindle, E. M., 4; Zamyatin, A. N., 3.
Lunulites.—Canu, F.
Luossavaara (Norrbotten).—Geijer, P., 1 & 2; Mesdag, F. T.
Lure (Haute-Saône).—Vélain, C.
Lussin I. (Adriatic).—Gegenbauer, V.
Lutacium.—Urbain, G.
Lutetia.—Cossmann, M., 2.
Lutra.—Reynolds, S. H., 2.
Luxemburg.—Anten, J., 2; Asselbergs, E., 1 & 2; Dondelinger, V.; Dorlodot, H. de, 2; Fraipont, C., 3; Jérome, A., 1–5 & 7; Rauw, H. de; Schmidt, R. R.; Van Werveke, L., 4.
Luzon I. (Philippines).—Adams, G. I.
Lydenburg (Transvaal).—Hall, A. L.
Lyell, C., Forfar geology and.—Geikie, Sir Archibald, 2.
Lygodium.—Engelhardt, H.; Fritel, P. H.
Lykins Formation, Colorado.—Girty, G. H., 2.
Lyme Regis (Dorset).—Woodward, H. B., 4.
Lyng (Norfolk).—Cockrill, H. W.
Lyons (Rhône).—Assada, I.; Doncieux, L., 1 & 2; Gignoux, M., 2; Glangeaud, P.; Pussenot, C., 2; Riche, A.
Lyrcæa.—Lörenthey, I. von.
Lytoceras.—Burckhardt, C.; Joleaud, L.; Krenkel, E.; Lemoine, P.; Papp, K. von; Pervinquière, L.; Rassmuss, H., 3.
Lyttonia.—Richthofen, F. von.

Maccoya.—Jackson, R. T.
Macedon District (Victoria).—Skeats, E. W.
Macedonia.—Ježek, B., 2; Katzer, F.; Reinhard, M., 5.
Macedonite.—Skeats, E. W.
Machuk Mt. (Russia).—Chervinskiĭ, P. N.; Orlov, N. A.
Mackenzie R. (Canada).—Lindgren, R.
Macleay R. district (N.S.W.).—Woolnough, W. G.
Macles, secondary.—Wallerant, F. F. A.
Maclurea.—Richthofen, F. von.
Macoma.—Weaver, C. E., 2.
Mâconnais (France).—Rouyer, C.
Macraster.—Böse, E., 3.
Macrocephalites.—Böhm, G., 2; Burckhardt, C.; Lemoine, P.
Macrochilina.—Dietz, E.
Macrodus.—Richthofen, F. von; Stefano, Giov. di; Tommasi, A.
Macropoma.—Woodward, A. S., 3.
Macroporella.—Pia, J. von.
Macroscaphites.—Joleaud, L.
Macrostachya.—Arber, E. A. N., 4.
Macrotæniopteris.—Krishtofovich, A. N.
Macrurella.—Cerulli-Irelli, S., 2.
Mactra.—Herrick, C. L., 2.
Madagascar.—Duparc, L., 3; Giraud, J., 1 & 2; Grandidier, G.; Köchlin, R., 4; Lacroix, A. F. A., 1, 5, 6, 8–11, 14, 15, 17–22, & 25–31; Lemoine, P.; Merle, A.
Madeira.—Komorowicz, M. von, 2.
Madeleine (Nord).—Pagniez, —, 3.
Maderan Valley (Uri).—Staub, W., 1–3.
Madüs, Lake (Pomerania).—Jentzsch, C. A., 2.
Maestrichtian, Baluchistan.—Das-Gupta, H. C.
——, Sudan.—Garde, G.
Magdalen Is. (Gulf of St. Lawrence).—Clarke, J. M., 2.
Magdalena R. (Colombia)—Lehmann, E.
Magierów (Galicia).—Rogala, W.
Magma.—Issel, A., 4.
——, expansion of cooling.—Fleischer, A.
——, gases in.—Niggli, P., 1 & 2.
Magnesite, Mysore.—Balaji Rao, B.

Magnesite, Sweden.—Tegengren, F. R.
——, Tyrol.—Canaval, R.
Magnesium bichromates.—Tutton, A. E. H., 3.
Magnetic declination, petroleum-fields and.—Tarr, W. A.
Magnetite.—Mesdag, F. T.; Tacconi, E.
——, Piedmont.—Müller, F. C.
—— -syenite-porphyry.—Sundius, R., 2.
Magnetites, organic origin of phosphoric.—Herdsman, W. H.
Magnolia.—Engelhardt, H.
Magnolites.—Tuzson, J.
Maikop (Kuban).—Charnotzkii, S.; Gubkin, I. M.
Main R., filtration of water of.—Scheelhaase, —.
Maine (U. S. A.).—Barrows, H. K.; Loomis, F. B.; Williams, H. S.
Mainz Basin (Germany).—Andrée, K., 5; Dollfus, G. F., 2; Fischer, K.; Jooss, C. H.; Mordziol, C., 1 & 4; Steuer, A., 1 & 2; Wenz, W., 2.
Maiocercus.—Pocock, R. I.
Maissau (Lr. Austria).—Mocker, F.
Majdan-Pek (Servia).—Wendeborn, B. A.
Majella (Abruzzo).—Novarese, V., 4; Thiel, G.
Mala.—Cerulli-Irelli, S., 2.
Malachite.—Dürrfeld, V., 2.
Malacostraca, Cambrian.—Walcott, C. D.
——, Ordovician.—Chapman, F., 6.
——, Tertiary.—Toula, F., 2.
Malaspina Glacier (Alaska).—Engeln, O. D. von.
Malay States.—Crook, T., 5; Scrivenor, J. B., 1–4.
Malea.—Toula, F., 2.
Malm, Switzerland.—Leuthardt, F.
Mamainse Pt. (Ontario).—Lane, A. C.
Mamberamo R. (New Guinea).—Van Gelder, J. K.
Mamers (Sarthe).—Lignier, O.
Mamissone (Caucasus).—Timofeev, K. I.
Mammalia, Eocene.—Depéret, C.; Granger, W.; Gregory, W. K.
——, Miocene.—Abel, O., 2; Andrews, C. W.; Bassani, F.; Cook, H. J.; Cooper, C. F.; Peterson, O. A., 2; Stefănescu, G.; Studer, T.; Vasseur, G., 2.
——, Oligocene.—Depéret, C., 3; Dorlodot, H. de; Mayet, L.
——, *Pithecanthropus* Beds.—Stremme, H.
——, Pliocene.—Kadić, O.; Khomenko, I.
——, Purbeck.—Woodward, A. S., 6.
——, Quaternary.—Abel, O., 7; Antonius, O.; Del Prato, A.; Dietrich, W. O.; Eaton, G. F., 2; Fabiani, R., 4; Glauert, L., 1 & 2; Harlé, É., 1–5; Hinton, M. A. C.; Jackson, J. W., 2 & 3; Janishevski, M.; Kadič, O.; Kellogg, L.; Kiernik, E.; Kinkelin, F., 2; Kler, M. O.; Kormos, T., 2, 5, 15, & 17; Kowarzik, R., 2; Menzel, H., 4; Merriam, J. C.; Moir, J. R., 4; Piers, H., 2; Pohlig, H.; Reichenau, W. von; Reynolds, S. H., 2; Richters, F.; Schmidtgen, O.; Sefve, I.; Stefănescu, G; Stefano, Gius. de; Studer, T., 2 & 3; Szentpétery, S. von, 1 & 2; Teglás, G., 2; Zuffardi, P.
Mammalia, Tertiary.—Abel, O.; Chapman, F., 13; Cardosa, A.; Del Prato, A.; Gidley, J. W.; Gregory, W. K., 2; Haupt, O.; Kinkelin, F.; Lotichius, A.; Matthew, W. D., 1–4; Peterson, O. A.; Pilgrim, G. E.; Schlesinger, G.; True, F. W.
——, fossil marine.—True, F. W., 2.
——, text-book.—Osborn, H. F., 3.
Mammoth, Austria.—Angerer, P. L.
——, Don Province.—Kler, M. O.
——, Siberia.—Janishevski, M.
Man, antiquity of.—Keith, A., 3.
——, bones worked by.—Kowarzik, R.
——, descent of.—Breuil, H.; Fraipont, C.; Giuffrida-Ruggeri, V.; Senet, R.; Smith, G. E.; Verneau, R.
—— in Pliocene times.—Bonney, T. G., 3; Fisher, O.; Hrdlička, A.; Lankester, Sir E. Ray; Romero, A. A.; Stopes, M. C. C., 1 & 2; Woodward, B. B.
——, oldest races of.—Schreiner, K. E.
——, pre-Inca race.—Bowman, I., 2.
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Man, Isle of.—Smith, J.; White, F. W.
Manaccan Series.—Flett, J. S., 4.
Manandonite.—Lacroix, A. F. A., 29.
Manchuria.—Kotô, B.
Manganese, Cape Colony.—Versfeld, W.
——, Mysore.—Balaji Rao, B., 3.
——, Rhenish Prussia.—Vierschilling, A.
——, Spain.—Hoyer, —.
——, United States.—Burchard, E. F.; Hayes, C. W., 2.
——, gold-enrichment and.—Emmons, W. H.
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—— minerals.—Butureanu, V. C., 2.
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Manganese-silver ore, Mexico.—Coghill, W. H.
Mangilia.—Cerulli-Irelli, S.
Mangishlak Peninsula (Caspian).—Lichkov, B. L.; Natzkagh, A. D.; Savchenko, A. S.
Mangoli I. (D.E.I.).—Böhm, G., 2.
Manhartsberge (Lr. Austria).—Reinhold, F., 2.
Manitoba (Canada).—Porter, J. B.
Manor-Powis Coalfield (Stirling).—Dron, R. W.
Mansfeld (Saxony).—Picard, E.
Mantellum.—Böse, E., 3

Mapping, use of plane-table in.—Higgins, D. F.; Pelton, E. F.; Ransome, F. L., 3; Wegemann, C. H.

MAPS.

AFRICA (North).
Algeria. Benisaf. 1 : 100,000. 1912.—Dussert, —.
——. Philippeville & Constantine. 1 : 200,000. 1912.—Joleaud, L.
Libya Italica. 1 : 6,000,000. [1912]. —Vinassa de Regny, P., 9.
Morocco. Guelaya. 1 : 300,000; Guelaya; Afra, Beni-bu-Ifrur Iron District, & Bocoya Iber-Kanen District. 1 : 15,000; Mixan-Afra District. 1 : 200,000. 1912.—Rubio y Muñoz, C.
Sudan. District between Niger R. & L. Chad. 1 inch = about 70 miles. 1911.—Garde, G.
——. Anglo-Egyptian Sudan. 1 : 8,000,000. 1911.—Dunn, S. C.
Tunis. 1 : 800,000. 1911.—Ginestous, G.
AFRICA (South).
Bechuanaland. German Part of Southern Kalahari. 1 : 2,500,000. 1912.—Range, P.
Griqualand (E.). Insizwa Area. 1 inch = 1·428 miles 1911.—*See* Cape of Good Hope.
Transvaal. 1 : 1,500,000. 1904.—Molengraaff, G. A. F.
——. Central Rand. Lower Witwatersrand System. 1 inch = 1 mile. 1912.—Mellor, E. T., 4.
——. Geological Survey. Sheet 9: Marico. 1 inch = 2·347 miles. 1912.
——. Murchison Range & District. 1 inch = 2·347 miles. 1912.—Hall, A. L., 5.
——. Waterberg District. 1 inch = 2·4 miles. 1910.—Kynaston, H.; Mellor, E. T.
AFRICA (South-West).
German S.W. Africa. Marble Localities. 1 : 1,000,000. 1910.—Gürich, G.
AMERICA (Central).
Mexico. Chihuahua. Cerro de Muleros. 1 : 10,000. 1910.—Böse, E., 3.
AMERICA (North).
Alaska. Central Copper River Region, & Headwater Region of Gulkana & Susitna Rivers. 1 : 250,000. 1912.—Moffit, F. H.
——. Iliamna Region. 1 : 250,000. 1912.—Martin, G. C., 2.
——. Matanuska Valley. 1 : 250,000. & (Lower Portion) 1 : 62,500. 1912.—Martin, G. C., 3.
——. Nizina District. 1 : 62,500. 1911.—Moffit, F. H., 2.

AMERICA (North).
Alaska. Seward Peninsula. 1 inch = about 24 miles. 1910.—Smith, P. S.
——. Sitka & Juneau Mining Districts. 1 inch = about 26 miles. 1912.—Knopf, A.
——. Solomon & Casadepaga Quadrangles. 1 : 62,500. 1910.—Smith, P. S.
Alaska Peninsula. 1 : 1,000,000. 1911.—Atwood, W. W.
—— ——. Chignik Bay. Herendeen Bay & Unga Island Regions. 1 : 250,000. 1911.—Atwood, W. W.
CANADA.
British Columbia. Phœnix. 1 : 4800. 1912.—Le Roy, O. E.
——. Portland Canal, Mining District. 1 inch = 2 miles. 1912.—McConnell, R. G.
——. Vancouver I. Nanaimo Coalfield. 1 : 48,000. 1912.—Clapp, C. H.
——. Yale District. Skagit Valley. 1 : 62,500. 1912.—Camsell, C., 3.
Ontario. Point Mamainse Copper District. 1 : 48,000. 1911.—Lane, A. C.
——. Sudbury District. West Shiningtree Area. 1 inch = 1 mile. 1912.—Collins, W. H.
——. Thunder Bay. Animikie Iron-Bearing District. 1 inch = $1\frac{1}{3}$ miles. 1911.—Van Hise, C. R.
Nova Scotia. 1 inch = 30 miles. 1912.—Rickard, T. A.
UNITED STATES.
California. Butte County. Oroville & Table Mountain; and Tertiary of Parts of Jackson & Big Tree Quadrangles. 1 : 125,000. 1911.—Lindgren, W.
——. Tertiary between San Andreas & Mokelumne Hill. 1 : 63,360. 1911.—Lindgren, W.
——. Sierra Nevada (Northern). 1 : 750,000. 1911.—Lindgren, W.
Colorado. Breckenridge District. 1 : 24,000. 1911.—Ransome, F. L.
——. (Southern Portion). Lake City Quadrangle. 1 : 62,500. 1911.—Irving, J. D.
Illinois. 1 inch = 12 miles. 1907.—Weller, S., 2.
——. Peoria Quadrangle. 1 : 62,500. 1912.—Udden, J. A.
Lake Superior Region.—1 : 1,000,000. 1911.—Van Hise, C. R.
Michigan. Calumet District. 1 : 90,000; Crystal Falls District, 1 : 125,000; Dead River Area, 1 : 62,500; Iron River District, 1 : 45,000; Keweenaw Point Copper District, 1 : 250,000; Marquette Iron District, 1 : 63,360; Menominee Iron District, 1 : 62,500;

AMERICA (North).

Penokee-Gogebic District (including part of Wisconsin), 1 : 90,000. 1911.—Van Hise, C. R.

Minnesota. Mesabi District, 1 : 62,500; Pigeon Point, 1 : 22,500; & Vermilion Iron District, 1 : 125,000. 1911.—Van Hise, C. R.

Missouri. Map of State. 1 inch= 11½ miles. 1912.—Crane, G. W.

Montana. Butte District. 1 : 15,000. 1912.—Weed, W. H.

——. Environs of the Butte District. 1 : 250,000. 1912.—Weed, W. H.

Nevada. Jarbridge & Contact Mining Districts. 1 : 125,000. 1912.—Schrader, F. C.

New Mexico. Albuquerque. 1 : 190,080. 1909.—Bryan, K.

——. Part of N.W. New Mexico & Northern Arizona. 1 : 1,000,000. 1910.—Darton, N. H.

New York. Broadalbin Quadrangle. 1 : 62,500. 1911.—Miller, W. J.

——. Honeoye-Wayland Quadrangles. 1 : 62,500. 1911.—Luther, D. D.

——. Schenectady Quadrangle. 1 : 62,500. 1911.—Stoller, J. H.

Washington. Index Mining District. 1 : 62,500. 1912.—Weaver, C. E.

——. Coal-Areas of King County. 1 inch=1 mile. 1912.—Evans, G. W.

——. Myers Creek Mining District. 1 inch = 1 mile. 1911.—Umpleby, J. B.

——. Oroville-Nighthawk Mining District. lcni 1=2 miles. 1911.—Umpleby, J. B., 2.

Wisconsin. Florence Iron District. 1 : 62,500. 1911.—Van Hise, C. R.

AMERICA (South).

Argentina. Cordillera between the Mendoza and Jachal Rivers. 1 : 500,000. 1911.—Stappenbeck, R.

Falkland Islands. —1 : 1,657,920. 1912.—Halle, T. G.

Guiana (Dutch). Guyana Gold-Placer. 1 : 25,000. 1909.—Verloop, J. H.

Patagonia. Patagonian Andes. 1 : 3,000,000. 1911.—Quensel, P. D.

Uruguay. 1 : 1,500,000. 1910.—Guillemain, C.; also 1912.—Guillemain, C., 2.

ARCTIC REGIONS.

Greenland. Igaliko Region. 1 inch = about 3 miles; & Ilimansak Region, 1 inch = about 2 miles. 1911.—Ussing, N. V.

Spitsbergen. 1 inch = about 40 miles. 1911.—Adan de Yarza, R., 2.

ASIA.

Burma. Henzada District (Northern & Southern Portions). 1 inch = 4 miles. 1912.—Stuart, M.

ASIA.

Burma. Minbu District, near Ngape. 1 inch = 1 mile. 1912.—Cotter, G. de P.

Cheleken I. 1 : 210,000. 1911.—Weber, V.

China. Nanking Mts. 1 : 1,875,000. 1912.—Richthofen, F. von.

—— (South). Sheets Tschöng-tu-fu; Kia-ting-fu; Tschung-king-fu; Kwéï-yang-fu; Han-kiang; Tschang-sha-fu; Höng-tshóu-fu; Canton; Kiu-kiang-fu; Nan-king; Tsiën-tang-kiang; Ning-po; Shanghai; Hwai-ngan-fu. 1 : 750,000. 1911.—Richthofen, F. von.

Dutch East Indies. Sumatra. Jambi District. 1 : 1,000,000. 1912.—Tobler, A.

India. Kashmir. Silurian-Triassic Sequence in Kashmir. 1 inch = 4 miles. 1910.—Middlemiss, C. S.

——. Mysore. Bababudan Hills, Kadur District. 1 inch = 2 miles. 1910.—Slater, H. K.

——. ——. Parts of Hosdurga & Arsikere Taluks. 1 inch=2 miles. 1911.—Sampat Iyengar, P., 3.

——. ——. Hassan District (Southern). 1 inch = 4 miles. 1911.—Sampat Iyengar, P., 2.

Malay States. Neighbourhood of Gopeng. 3 cm.=2 miles. 1912.—Scrivenor, J. B., 2.

Manchuria. Yingémên Area. 1 : 400,000. 1912.—Kotô, B.

Philippine Islands. Masbate I. Aroroy Mining District. 2 cm. = 1 mile. 1911.—Ferguson, H. G.

Siberia. Maravijev-Amursky Peninsula. 1 : 210,000. 1911.—Wittenburg, P. von, 2.

——. Sichota-Alin. 1 : 300,000. 1912.—Dunikowski, E. H.

Tian Shan Mts. Chalyk-Tau. 1 : 500,000. 1912.—Leuchs, K.

Turkestan. Eastern Ferghana. 1 inch = 10 versts. 1911.—Mushketov, D. I.

AUSTRALASIA.

New South Wales. Pokolbin. 1 inch=½ mile. 1912.—Browne, W. R.

——. Site of the Federal Capital of Australia. 1 : 9,600. 1911.—Pittman, E. F.

New Zealand (North Island). Taranaki Division. Paritutu & Waitara Survey Districts, 1 inch= 1 mile; also Portion of Taranaki Division. 1 inch=4 miles. 1912.—Clarke, E. de C.

——. Auckland. Thames Subdivision. Hastings, Thames, & Waihou Survey Districts. 1 inch= 1 mile. Thames Goldfield. 1 inch =1 furlong. 1910.—Fraser, C.

AUSTRALASIA.

New Zealand (North Island). Whatatutu Subdivision. Waingaromia & Mangatu Survey Districts. 1 inch = 1 mile 1910.—Adams, J. H.

South Island. Mt. Radiant Subdivision. Kongahu and Otumahana Survey Districts. 1 inch = 1 mile. 1910.—Webb, E. J. H.

——. Dun Mountain Subdivision. Dun Mountain Copper & Chrome Deposits, 1 : 15,840; Waimea & Maungatapu Survey Districts. 1 : 63,360. 1911.—Bell, J. M., 2.

South Island. South Westland. Cobden, Greymouth, Arnold & Temiko; Hohonu; Mawheranui & Brunner; & Waimea Survey Districts, 1 : 63,360; also Greymouth Coalfield, 1 : 47,520. 1911.—Morgan, P. G.

Queensland. Mt. Morgan & District. 1 : 39,600. 1912.—Hart, G. S.

South Australia. Caledon Bay Granite Area. 1 : 7,920. 1912.—Murphy, W. F.

Tasmania. Mersey District, 1 : 39,600; & Minnow Shale-Field, 1 : 25,344. 1912.—Twelvetrees, W. H.

——. X River Tin-Field. 1 : 15,840. 1911.—Ward, L. K., 2.

Victoria. Macedon District. 1 inch = 1 mile. 1912.—Skeats, E. W.

EUROPE.

AUSTRIA-HUNGARY.

Austria. Iron-Ore Occurrences in the Austrian Alps (*various*). 1910.—Uhlig, V. K., 3.

Bohemia. Buchau. 1 : 25,000. 1912.—Krehan, H.

Carniola. Idria & District. 1:5,760. 1912.—Kropáč, J.

Hungary. Zboro District. 1 inch= ⅝ mile. 1912.—Bernoulli, W.

Moravia & Silesia. (Parts). 1 inch=about 4 miles. 1911.—Beck, H.

Styria. Erzberg. 1 : 15,000. 1910,—Uhlig, V. K., 3.

Transylvania. Erzgebirge Tectonic map, 1 : 200,000; Boicza District, 1 : 12,500; Bárza & Muszár District, 1 : 25,000; Verespatak, 1 : 5,000. 1912.—Pálfy, M. von, 5.

——. Ruda District. 1 : 25,000. 1912.—Schumacher, F., 2.

Tyrol. Buffaure. 1 : 25,000. 1912.—Penck, W., 2.

——. Hoch Joch. 1 : 10,000. 1912. Gruber, O.

——. Monte Spinale. 1 : 25,000. 1912.—Schwinner, R., 2.

EUROPE.

Vorarlberg. Hochblanken-Hohe Ifen District. 1 : 25,000 & 1 : 75,000. 1911.—Mylius, H.

Belgium. Hainault. Massif charrié de Fontaine l'Évêque—Landelies. 1 : 126,720. 1911.—Fourmarier, P., 7.

——. Liége. La Faille de Villers-aux-Tours. 1 : 10,000. 1912.—Rauw, H. de, 2.

——. Luxemburg (with the Eifel border). 1 : 300,000. 1912.—Asselbergs, E.

——. —— (Lower Devonian). 1 : 160,000. 1912.—Asselbergs, E.

Fennoscandia. Pre-Quaternary Rocks. 1 : 8,000,000. 1910.—Sederholm, J. J.

France. Bas Dauphiné (Alluvial & Fluvio-glacial deposits). 1 : 200,000. 1912.—Kilian, C. C. W., 7.

——. Haute Savoie. Massif du Haut Giffre. 1 : 80,000. 1910.—Collett, L. W.

——. Rives. 1 : 60,000. 1912.—Blanchard, R.

——. Var. Estérel. 1 : 50,000. 1912.—Lévy, A. M.

GERMANY.

Germany. Structural Geology of Germany. 1 : 2,000,000. 1912.—Walther, J. K., 4.

—— (North). Glaciation Map. 1 : 3,700,000. 1910.—Habenicht, H.

Baden. Stühlingen. 1 : 25,000. 1912.—*See* Baden.

Bavaria. Lattengebirge. 1 : 25,000. 1912.—Lebling, C.

Hanover. Ahlem Asphalt District. 1 : 7,500. 1911.—Schöndorf, F.

Hesse. Basalt Districts between Fritzlar & Wolfhagen. 1 : 50,000. 1911.—Heykes, K.

——. Marburg. 1 : 25,000. 1912.—Herrmann, F., 3.

Lippe. Calldorf District. 1 : 50,000. 1911.—Mestwerdt, A.

Posen. Lakes of the Meseritz & Birnbaum Districts. 1 : 25,000. 1912.—Jentzsch, C. A., 4.

Saxony. Bitterfeld. 1 : 450,000 & 1 : 100,000. 1912.—Linstow, O. von, 4.

Swabia. Breitach-Stillach District. 1 : 25,000. 1912.—Pontoppidan, H.

Westphalia. Germete District, nr. Warburg. 1 : 25,000. 1911.—Mestwerdt, A.

——. Teutoburg Forest between Bielefeld & Örlinghausen. 1 : 50,000. 1911.—Burre, O.

Greece. Ithaca. 1 : 150,000. 1911.—Renz, C., 7.

Italy. Abruzzo. Majella Asphalt-Deposits. 1 : 50,000. 1912.—Thiel, G.

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Italy. Apulia. 1 : 500,000. 1912. —Sacco, F., 2.

——. Emilia. Petroleum-Districts. Sillaro-Idice-Quaderna, 1 : 50,000; Samoggia-Venola, 1 : 50,000; Parma-Enza, 1 : 50,000; Taro-Baganza, 1 : 50,000; Salsomaggiore, 1 : 25,000; Riglio-Chero-Chiavenna, 1 : 25,000; Trebia, 1 : 50,000. 1911.—Camerana, E.

——. Lombardy. S.E. Alta Brianza. 1 : 25,000. 1912.—Rassmuss, H., 3.

——. ——. Grigna & Val Sassina. 1 : 100,000. 1912.—Cermenati, M., 2.

——. Lombardy. Monte Barro. 1 : 25,000. 1912.—Bussandri, G.

——. Piedmont. Argentera Group. 1 : 100,000. 1911.—Sacco, F.

——. ——. Traversella District. 1 : 100,000. 1912.—Müller, F. C.

——. ——. Traversella & Brosso. 1 : 79,200. 1912.—Müller, F. C.

——. ——. Montaju-Gias del Gallo. 1 : 5,000. 1912.—Müller, F. C.

——. ——. Riondello-Castiglione. 1 : 5,000. 1912.—Müller, F. C.

——. Rome. Vulcani Cimini. 1 : 75,000. 1912.—Sabatini, V., 2.

——. Umbria. Spoleto. 1 : 50,000. 1912.—Lotti, B., 3.

——. Venetia. Meduno District. 1 : 75,000. 1912.—Stefanini, G., 4.

——. ——. Vicenza (Tertiary of Castelgomberto, Montecchio Maggiore, Creazzo, Monte Crocetta & Monteviale). 1 : 25,000. 1912.—Kranz, W., 7.

——. ——. Tiene-Conco-Bassano District. 1 : 75,000. 1912.—Fabiani, R., 2.

Norway. Bergen District. 1 inch = about 8½ miles & 1 inch = about ½ mile [1911]. 1912.—Kolderup, C. F., 6.

——. Okstinderne Mt. 1 : 200,000. 1910.—Hoel, A., 2.

Rumania. Dobrudscha: Mogosesti District. 1 : 200,000. 1911.—Sevastos, R.

——. Soil-Map. 1 : 2,500,000. 1911. —Murgoci, G.

Russia. Carte géologique et tectonique des Terrains Primaires. 1 inch = 250 versts. 1912.—Tetiaev, M., 2.

——. Baltic Provinces (Eastern). 1 : 1,500,000. 1911. — Bassler, R. S.

——. Caucasus. Elbruz District. 1 inch = 1 verst. 1911.—Gherasimov, A. P., 2.

——. ——. Kakhetia. 1 inch = 5 versts. 1911. — Ryabinin, A. N., 3.

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Russia. Finland. Quaternary Deposits. 1 : 2,000,000. 1910.—Sederholm, J. J., 3.

——. Kuban. Chaduizhinsk Petroleum District. 1 : 42,000. 1910.—Bogdanovich, K. I.

——. Kuban Petroleum-District. Sheets Majkop & Prusskaya-Daghestanskaya. 1 : 42,000. 1911. — Charnotzkii, S.

——. Oukhta River District. 1 : 210,000. 1911.—Zamyatin, A. N.

——. Saratov Province. Saratov-Kamishin District (Cretaceous Rocks, Saratov side of R. Volga). 1 : 840,000. 1912.—Arkhangelski, A. D.

——. Vyatka (Western Part). 1 inch = about 10 kilometres. 1912.—Krotov, P.

Scandinavia. 1 inch = about 30 kilometres. 1911.—Adan de Yarza, R., 2.

Sweden. Kiirunavaara & Luossavaara Iron-Ore Mountains. 1 : 8,000. 1910.—Geijer, P., 2.

——. Kopparberg. Dalarne. 3 inches = 1 kilometre. 1911.—Adan de Yarza, R., 2.

——. Norrbotten. Gellivara. 3 inches = 2 kilometres. 1911.—Adan de Yarza, R., 2.

——. Svealand. Norberg. 2 inches = about 1 kilometre. 1911.—Adan de Yarza, R., 2.

Switzerland. Aargau. District between Aa & Frick Valleys. 1 : 100,000. 1911.—Brändlin, E.

——. Berne. Niesen. 1 : 50,000. 1912.—Beck, P., 2.

——. Jura between Reigoldswil (Basel) & Œnsingen (Solothurn). 1 : 25,000. 1912.—Delhaes. W., 2.

——. Uri. Ranges between the Schachen & Maderan Valleys. 1 : 50,000. 1911.—Staub, W.

GREAT BRITAIN.

England and Wales. Geological Survey. 1-inch Geological Map (New Series). Drift. 113. Ollerton, 1911; 325. Exeter; 337. Tavistock; 338. Dartmoor Forest; 355. Kingsbridge; 356. Start Point; 359. Lizard, 1912.

——. Cumberland. Black Combe District. 1 inch = 2 miles. 1912. —Smith, Bernard, 2.

——. Gloucestershire. Cheltenham. 6 inches = 1 mile. 1912.—Richardson, L., 3.

——. Herefordshire. Pedwardine Inlier. 3 inches = 1 mile. 1912.—Cox, A. H.

——. Leicestershire. Country around Charnwood. 1 inch = 2 miles. 1912. —Bosworth, T. O., 4.

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England and Wales. Merionethshire. Neighbourhood of Mynydd-y-Gader. 3 inches=1 mile. 1912.—Lake, P.
——. Pembrokeshire. Brawdy & Hayscastle District. 2 inches=1 mile. 1912.—Thomas, Herbert H.
——. Somerset. Upper Vobster Inlier. 12 inches=1 mile. 1912.—Sibly, T. F.
——. Suffolk. 1 inch = 4 miles. [1912].—Woodward, H. B., 2.
——. ——. Gipping Valley. 6 inches=1 mile. 1912.—Boswell, P. G. H.
——. Warwickshire. Permian Rocks of Hamstead. 1:15,840. 1912.—Hardaker, W. H.
——. ——. The Upper Keuper Marls (& Arden Sandstone-Group). 1 inch=1 mile. 1912.—Matley, C. A.
——. ——. Warwickshire Coalfield. 1 inch=2 miles. 1912.—Vernon, R. D.
——. Westmorland, with parts of Lancashire. Lower Carboniferous Rocks of Shap & Ravenstonedale District; and of Kendal, Kirkby Lonsdale, Arnside, Furness & Grange Districts. 1 inch=1 mile. 1912.—Garwood. E. J.
——. Wiltshire. Vale of Wardour. 1 inch=1 mile. 1912.—Ord, T.
——. Central Wales & Adjoining Regions. 1 inch=10 miles. 1912.—Jones, O. T.
Scotland. Geological Survey. ¼-inch Map. Sheet 15. 1912. 6-inch Map. Lanarkshire. Sheets 9 N.E., & 11 N.W. (Solid & Drift). 1911. Oil-Shale Fields of the Lothians. 1 inch=2 miles. 1912.—Carruthers, R. G.
——. Argyll. Glen Orchy District. 1 inch=1 mile. 1912.—Bailey, E. B., 4.
——. South-East Highlands. 1 inch =4 miles. 1912.—Barrow, G., 4.
IRELAND. Geological Survey. Antrim. Interbasaltic Beds of Northern Ireland. 1 inch=1 mile. 1912.—Cole G. A. J., 4.
——. Mayo. Kilbride Peninsula. 4 inches=1 mile. 1912.—Gardiner, C. I., 2.

Maps, agro-geological.—Schottler, W.
——, geomorphologic.—Gehne, H.
Marble, German S.W. Africa.—Gürich, G.
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Marginifera.—Richthofen, F. von.
Marginulina.—Franke, A.; Vadász, M. E., 2.
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Maros R. district (Hungary).—Noszky, E.
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Marossárpatak (Transylvania).—Szentpétery, S. von.
Marrella.—Walcott, C. D.
Mars, analogies between the earth and.—Cortese, E.
Marseilles (Bouches-du-Rhône).—Haug, É., 2; Repelin, J., 3 & 5.
Marshallia.—Schrammen, A.
Marshes, Cape Cod.—Davis, C. A.
——, Germany.—Potonié, H., 2.
——, Hungary.—László, G. von.
——, Siberia.—Poluinov, B. B.; Smirnov, V. P.
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Marsupites.—Clark, A. H.
Martelange (Luxemburg).—Jérome, A., 4.
Martinique (West Indies).—Dublancq-Laborde, —.
Martinrive (Liége).—Lohest, M., 3.
Maryborough (Victoria). — Howitt, A. M., 6.
Maryland.—Berry, E. W., 1, 3, & 4; Clark, W. B., 1 & 2; Lull, R. S., 2; Miller, B. L., 2; Singewald, J. T., *fil.*
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Masbate I. (Philippines).—Ferguson, H. G.
Maskelyne, M. H. N. S., *Obit.—See* Ruecker, Sir Arthur W.; Watts, W. W.
Mason (Michigan).—Wooster, L. C.
Massachusetts.—Davis, C. A.; Emerson, B. K.; White, D., 2.
Massilina.—Heron-Allen, E.
Mastodon.—Drevermann, F.; Kadić, O.; Khomenko, I.; Piers, H., 2.

Mastosia.—Kolb, R.
Maszycka Cave (Poland).—Kiernik, E.
Matanuska Valley (Alaska).—Martin, G. C., 3.
Matavanu Volcano (Savaii).—Anderson, T.
Matehuala (Mexico).—Spurr, J. E., 2.
Matherella & *Matthevia.*—Walcott, C. D., 4.
Mátyásberg (Hungary).—Pávai-Vajna, F. von, 2.
Mauchline lavas, Ayrshire.—Tyrrell, G. W.
Mauer (Baden).—Wurm, A.; Freudenberg, W.
Mauriac (Cantal).—Mouret, G., 2.
Maustrenk (Lr. Austria).—Schaffer, F. X.
Maw, G., *Obit.*—*See* Anon., 12; *&* Watts, W. W.
Mayari (Cuba).—Hayes, C. W.; Little, J. E.
May de Madiis, A. F., *Obit.*—*See* Rotky, O.
Mayenne (France).—Azéma, L.
Mayo (Ireland).—Gardiner, C. I., 2; Woodward, H.
Maytenus.—Engelhardt, H.
Mazapil (Mexico).—Burckhardt, C.
Mazon Creek (Illinois).—Moodie, R. L., 6.
Mecin (Dobrudscha).—Cadere, D. M.
Mecklenburg (Germany).—Geinitz, E.
Mediterranean Area, recent changes in.—Hull, E.
——, deposits from floor of.—Chelussi, I., 4; Salmojraghi, F.
——, Western.—Gignoux, M.
Medulosa.—Frič, A.
Meduna Basin (Venetia).—Stefanini, G., 4.
Medusæ, Carboniferous.—Couyat, J., 2.
Medway R. (N.S.).—Faribault, E. R.
Meekechinus.—Jackson, R. T.
Meekoceras fauna.—Smith, J. P., 3.
Meekospira.—Girty, G. H.
Megalaspis.—Raymond, P. E.; Steinmann, J. H. C. G. G., 7.
Megalithista.—Kolb, R.
Megalodus.—Stefano, Giov. di.
Megapygus.—Hawkins, H. L., 6.
Megaxinus.—Cossmann, M., 2.
Méhaigne Valley (Belgium).—Delépine, G.
Meiningen (Germany).—Brandes, T., 2.
Meiringen (Switzerland).—Arbenz, P., 2.
Melada I. (Dalmatia).—Schubert, R. J., 3.
Melanderella.—Cockerell, T. D. A., 2.
Melania & *Melanoides.*—Lörenthey, I. von.
Melanopsis.—Halaváts, G. von; Lörenthey, I. von; Toula, F., 3.
Melaphyre.—Penck, W., 2.
Melastoma.—Engelhardt, H.
Meles.—Reynolds, S. H., 2.
Melilite-rocks.—Söllner, J., 2.
Melilla (Morocco).—Dieckmann, W.
Melnikovite.—Doss, B., 1–3.
Melonechinus.—Jackson, R. T.
Melonella.—Kolb, R.
Melongena.—Böse, E.; Knett, J.
Melting-point, pressure and.—Riecke, E.
Membranipora.—Brydone, R. M.; Canu, F.
Memel (East Prussia).—Kaunhowen, F.
Menai Strait.—Greenly, E., 2.
Menat (Puy-de-Dôme).—Laurent, L., 2.
Mencshely (Hungary).—Kormos, T., 9.
Mendips (Somerset).—Reynolds, S. H., 3.
Mendoza (Argentina).—Carlés, E. de, 2; Loos, P. A.; Stappenbeck, R.; Stieglitz, O.
Meneage (Cornwall).—Flett, J. S., 4.
Meninatherium.—Abel, O.
Menispermites.—Berry, E. W.
Mercury sulphide.—Allen, E. T., 3.
Meretrix.—Toula, F., 2; Weaver, C. E., 2.
Merionethshire.—Lake, P.; Osborn, T. G. B.
Merista.—Herrmann, F., 3.
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Meristina.—Gortani, M.
Merlia.—Kirkpatrick, R.
Merostomata, Cambrian.—Walcott, C. D.
——, Carboniferous.—Pruvost, P., 3.
——, Devonian.—Leriche, M.
Merseburg (Germany).—Wüst, E.
Mersey R.—Field, Sir Arthur M.
Mesalia.—Oppenheim, P.
Meseritz (Posen).—Jentzsch, C. A., 4.
Mesomorpha.—Oppenheim, P.
Mesotrypa.—Bassler, R. S.
Mesozoic, Kent borings.—Lamplugh, G. W., 9.
——, Transcaucasia.—Bonnet, P.
—— faunal provinces.—Diener, C., 4.
——. *See also* Jurassic, *&c.*
Messel (Hesse).—Haupt, O.; Klemm, G.
Messina earthquake.—Rizzo, G. B.
Metaclopsydropsis.—Gordon, W. T.
Metacoceras.—Girty, G. H.
Metallogeny.—Launay, L. de, 1 & 2.
Metals, uses of the rare.—Stephens, F. J.
Metamorphic rocks.—Erdmannsdörffer, O. H., 3.
—— ——, Gasteren.—Truninger, E.
—— ——, Rhenish Prussia.—Brauns, R., 2.
—— ——, Salmian.—Anten, J., 3.
—— ——, Scotland.—Barrow, G., 5.
—— ——, Tasmania.—Ward, L. K., 5.
—— ——, Ticinese Alps.—Gutzwiller, E., 2.
—— ——, Transvaal.—Hall, A. L., 4.
—— ——, Zacatecas.—Bergeat, A.
—— ——, fossils in New Brunswick.—Ells, R. W.

Metamorphic rocks, geochemistry of.—Clarke, F. W.
—— ——, structure of.—Grubenmann, U., 2.
Metamorphism.—Becke, F. J. K., 4; Brauns, R., 5; Leith, C. K., 2.
——, Cornwall & Devon.—Reid, C., 3.
——, Delos.—Cayeux, L., 2.
——, Lizard.—Flett, J. S., 4.
——, Rhode I.—Lahee, F. H., 2.
——, Swiss Alps.—Königsberger, J., 3.
——, granite-masses and.—Lepsius, R., 2.
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Metamorphosed Secondary rocks, Pyrenees.—Longchambon, M.
Metasomatism, basaltic rocks.—Vialay, A.; *see also* Replacement.
Meteoric glass, analysis of.—Rzehak, A.
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—— shower. Arizona.—Foote, W. M.
Meteorites.—Ball, J., 2; Berwerth, F., 1–3; Clarke, H. E.; Couyat, J.; Farrington, O. C., 1 & 2; Ghrishchinskiĭ, P. I.; Gregorio, A. de.; Hume, W. F.; Ivanov, L. L.; Merrill, G. P., 2; Meunier, E. S.; Prior, G. T.; Rudge, W. A. D.; Schreiter, R., 2; Thomson, E.; Timofeev, K. I., 2.
Meule Creek (Quebec).—Keele, J., 2.
Meuse R., ancient mouth of.—Pohlig, H., 2.
Mexico.—Baud, P.; Bergeat, A.; Böse, E., 1–3; Burckhardt, C., 1 & 2; Caballero, G. de J.; Dumble, E. T., 2; Ford, W. E., 4; Garfias, V. R.; Hlawatsch, C.; Hynes, D. P.; Königsberger, J., 8; Lee, M. L.; Lumholtz, C.; Ordoñez, E.; Seebach, M.; Spurr, J. E., 2; Van Horn, F. R.; Villarello, J. D., 1 & 2, Wittich, E., 2–4, 8.
Mexico, Gulf of.—Freeman, W. B., 3.
Mexico City.—Wittich, E.
Mia Mia Mine (Victoria).—Whitelaw, H. S., 2.
Miami R. (U.S.A.).—Fenneman, N. M., 2.
Mica.—Baumhauer, H., 4; Hayes, C. W., 2; Schmid, H. S. de; Stansfield, J.; Sterrett, D. B.; Tronquoy, R.
——. *See also* Schists.
Michelinia.—Smith, J.
Michigan (U.S.A.). — Montessus de Ballore, F. de, 8; Van Hise, C. R.; Wooster, L. C.
Michoacan (Mexico).—Caballero, G. de J.; Ordoñez, E.
Microblastidium.—Schrammen, A.
Microdictya.—Meunier, F., 3.
Microloripes.—Cossman, M., 2.
Micromelania. — Halaváts, G. von; Lörenthey, I. von.
Micropetrology, *see* Petrography.
Micropora.—Bassler, R. S.; Canu, F.
Microptychis.—Longstaff, J.
Microrhizophora.—Kolb, R.
Microscope, examination of sections under the.—Pietzsch, K.
——, new petrographic.—Leiss, C.
——, polarizing.—Weinschenk, E. H. O. C.
Microseismic motion.—Burbank, J. E.
Microseisms caused by frost.—Burbank, J. E., 2.
Microtus.—Schmidtgen, O.
Middleton-in-Teesdale.—Garwood, E. J.
Midland Coalfields.—Bolton, H.; Horwood, A. R., 4.
Miedzianka Mt. (Russia).—Charnotzkiĭ, Y. A.
MIEG, M., *Obit.*—*See* Stehlin, H. G.
Mieminger - Wetterstein Overthrust.—Schlagintweit, O., 2.
Miliolina.—Vadász, M. E., 2.
Millerite.—Manasse, E., 2.
Millstone Grit.—Gilligan, A.
MILNE, J., *Biogr.*—Woodward, H., 2.
Miltha.—Cossmann, M., 2.
Mimetesite.—Paul, F. P.
Mina Mexico Vein (Mexico).—Hynes, D. P.
Minahassa I. (D.E.I.).—Ahlburg, J., 3.
Minas Geraes (Brazil).—Dreher, O.
Minbu district (Burma).—Cotter, G. de P.
Minchinella.—Welter, O. A.
Mindanao (Philippine Is.).—Smith, W. D.
Mineral - association, law of.—Goldschmidt, V. M., 3.
Mineral districts, Sweden.—Adan de Yarza, R., 2.
—— grains, heavy.—Bosworth, T. O., 3 & 4.
—— industry, France.—Mettrier, —.
—— localities.—Görgey, R., 3.
—— paints, Pennsylvania.—Miller, B. L.
—— production, India.—Hayden, H. H., 3.
—— ——, Sweden.—Hedström, H., 2.
—— resources, Alaska.—Brooks, A. H.
—— ——, Colorado.—Guiterman, F.
—— ——. *See also* Coal, Gold, *&c.*
—— veins, Auckland, N.Z.—Fraser, C.
—— ——, Philippine Is. — Smith, W. D., 2.
—— waters, Austria.—Schubert, R. J., 2.
—— ——, Bavaria.—Schwager, A.
—— ——, Belgium.—Poskin, A.
—— ——, Hungary.—Emszt, K., 1 & 2.
—— ——, Narzan.—Oghiluvi, A. N.
—— ——, New York.—Kemp, J. F., 2.
—— ——, Russia.—Zamyatin, A. N., 2.
—— ——, Spain.—Almeira, J.
—— ——, Victoria.—Dunn, E. J., 12.
—— ——, Westphalia.—Mestwerdt, A.
—— ——, geochemistry.—Clarke, F. W.
Mineralogy, Swedish.—Flinck, G.
——, text-books.—Dölter, C., 5; Ford, W. E., 3; Hatch, F. H., 3; Hintze, C.
——. *See also* INTERN. CAT. SCI. LIT.

Minerals.—Félix, J.
——, Arctic Bed.—Davies, G. M.
——, Hungarian rock-forming.—Mauritz, B.
——, Moscow.—Nikolaevskij, F. A.
——, Russian.—Nenadkevich, K. A.
——, Sarawak.—Geikie, J. S.
——, colour-reaction determination of.—Gaubert, P.
——, composition & physical properties of.—Cox, G. H.
——, effect of radium on colours of.—Brauns, R., 3.
——, evolution of.—Ricciardi, L.
——, flotation of.—Mickle, K. A.
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——, genesis of.—Panebianco, R.
——, hardness of.—Kip, H. Z.; Lane, A. C., 3.
—— mentioned in the Bible.—*See* British Museum (Nat. Hist.).
——, microscopic study of.—Schneiderhöhn, H.
——, new.—Köchlin, R., 2; Schwantke, A., 1.
——, nomenclature of.—Washington, H. S., 2.
——, paragenesis of.—Rogers, A. F., 5.
——, rock-forming.—Clarke, F. W.
——, salt-deposits.—Görgey, R., 1 & 2.
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——, symbols for chemical formulæ of.—Panebianco, H., 2.
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—— in Tyrol limestone fossils.—Haas, A.
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——, British Columbia.—Robertson, W. F.; *see also* British Columbia, Dep. Mines.
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——, Cornwall.—Bryant, V. S.; Collins, J. H., 2; Reid, C., 3.
——, Devon.—Reid, C., 3.
——, Dublin.—Maberly, F. H.
——, Dutch East Indies.—*See* Dutch East Indies.
——, Gold Coast.—*See* Gold Coast.
——, Great Britain.—*See* Great Britain, Home Office.
——, India.—*See* India, Dep. Mines.
——, Ireland (N.E.)—Cole, G. A. J., 4.
——, New South Wales.—*See* New South Wales.
——, Peru.—Jimenez, C. P.
——, South Africa.—Olver, J. S.; *see also* South Africa, Dep. Mines.
——, South Australia.—*See* South Australia, Dep. Mines.
——, Tasmania.—*See* Tasmania, Dep. Mines.
Mines, U.S.A. (Western).—Hill, J. M.
——, Washington.—Weaver, C. E.
——, West of England.—Collins, J. H., 3.
——, coal-dust in.—Garforth, W. E.
Minette.—Blum, L., 1 & 2; Van Werveke, L., 4; Müller, F. C.
Mining, Auckland, N.Z.—Fraser, C.
——, Ontario.—*See* Ontario, Bur. Mines.
——, W. Australia.—Montgomery, A.
—— laws.—Veatch, A. C.
Minnesota (U.S.A.).—Adams, F. S.; Leverett, F.; Van Hise, C. R.
Miocene, Alaska.—Atwood, W. W.
——, Algeria.—Depéret, C., 2; Joleaud, L.; Joly, A., 2.
——, Austria (Lr.).—Schaffer, F. X., 1 & 3.
——, Baden.—Stehlin, H. G., 2.
——, California.—Smith, J. P.
——, France.—Clark, E. G.; Cottreau, J.; Vasseur, G.
——, Hungary.—Gaál, S. von, 2 & 6; Halaváts, G. von; Lörenthey, I. von; Papp, K. von, 3; Vitalis, S.
——, Italy.—Canavari, I.; Lotti, B., 2; Sacco, F., 2.
——, Mainz Basin.—Mordziol, C., 1 & 4.
——, Maryland.—Miller, B. L., 2.
——, Moldavia.—Sevastos, R.
——, New Zealand.—Adams, J. H.
——, Rhine district.—Weingärtner, R. M.
——, Russia.—Andrusov, N. I., 4; Boghachev, V. V.; Sintzov, I. T., 2.
——, Sardinia.—Lovisato, D.
——, Venetia.—Fabiani, R.
——, Vienna Basin.—Cottreau, J.
——, West Indies.—Guppy, R. J. L., 1 & 2.
—— Oyster, survival in recent seas.—Newton, R. B., 2.
Miocidaris.—Jackson, R. T.
Miodytiscus.—Wickham, H. F.
Miogypsina.—Douvillé, H., 2; Rutten, L.
Mississippi Basin (U.S.A.).—Shaw, E. W.; Follansbee, R.; Freeman, W. B., 2.
Mississippian Formation, delta-deposit in.—Branson, E. B.
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Missouri River Basin (U.S.A.).—Keyes, C. R., 5; Lamb, W. A.
Mitoclema.—Bassler, R. S.
Mitra.—Cerulli-Irelli, S., 2; Toula, F.; Weaver, C. E., 2.
Mitrella.—Cerulli-Irelli, S., 2.
Mitta Mitta district (Victoria).—Chapman, F., 7.
Mittel-Bünden (Grisons).—Steinmann, J. H. C. G. G., 4.
Mixosaurus.—Winan, C.

Moa district (Cuba).—Cox, F. C., *fil.*; Cumings, W. L.; Hayes, C. W.

Modiella.—Zamyatin, A. N., 3.

Modiolaria.—Kaldhol, H.

Modiolopsis.—Leriche, M.; Priem, F.

Modiomorpha.—Kindle, E. M., 4.

Mödling (Austria).—Toula, F., 3.

Möen I. (Baltic).—Hintze, V.

Mogosesti (Moldavia).—Sevastos, R.

Mohave Desert (California).—Baker, C. L.

Mohawk Valley (N.Y.).—Fairchild, H. L.

Moine Gneisses & Schists.—Barrow, G., 5; Peach, B. N., 4.

Mokchane (Penza).—Krasovskiĭ, A.

Molaria.—Walcott, C. D.

Molasse.—Delhaes, W., 2; Knupfer, S.; Schmidle, W.

Moldavia.—Athanasiu, A., 1 & 3; Enculescu, P., 1 & 2; Reinhard, M.; Sevastos, R.

Moldavites.—Merrill, G. P.

Mollisonia.—Walcott, C. D.

Mollusca, Fayûm Tertiary.—Newton, R. B.

——, Quaternary.—Kennard, A. S., 1 & 2; Kormos, T., 8; Menzel, H., 3 & 4.

——, layers of the shell of.—Horwood, A. R., 1 & 6.

——. *See also* Cephalopoda, Gastropoda, & Lamellibranchia.

Molucca Is. (D.E.I.).—Krumbeck, L.

Molybdenite.—Nasini, R., 2; Panichi, U., 2.

Mona.—Smith, J.

Monazite.—Lacroix, A. F. A., 26.

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Mong Long (Northern Shan States).—Brown, J. C.

Mongolia (Asia).—Granö, J. G.

Monmouth.—Gardiner, C. I.

Monodacna.—Lörenthey, I. von; Sintzov, I. T., 2.

Monograptus.—Elles, G. L.; Törnquist, S. L., 2.

Monopora.—Canu, F.

Monotrypa.—Bassler, R. S.; Papp, K. von, 2; Vinassa de Regny, P., 3 & 4.

Monotrypella.—Vinassa de Regny, P., 3 & 4.

Mons (Hainault).—Cornet, J., 1 & 2.

Mont d'Or (Doubs).—Collot, L.

Mont Blanc (Savoy).—Kilian, C. C. W., 8; Vallot, J., 2.

Montacuta.—Cossmann, M., 2; Kaldhol, H.

Montana (U.S.A.).—Alden, W. C.; Bastin, E. S.; Campbell, M. R.; Gilmore, C. W.; Hayes, C. W., 2; Hershey, O. H., 2; Kirk, C. T.; Rogers, A. F.; Schaller, W. T., 11; Weed, W. H.; Winchell, H. V.

Montbrison (Loire).—Glangeaud, P.

Monte Brà (Switzerland).—Salamon, W., 5.

Monte Cristo I.—Millosevich, F.; Nasini, R.

Monte Guglielmo (Lombardy).—Cacciamali, G. B.

Montecchio Maggiore (Venetia).—Kranz, W., 3.

Monterey Series.—Martin, B.

Montesquieu Avantès (Ariège).—MacCurdy, G. G.

Monteviale (Venetia).—Kranz, W., 3.

Montferrier (Ariège).—Canal, J., 2.

Montgeon, Forest (France).—Duteurtre, M.

Monticulipora.—Bassler, R. S.; Vinassa de Regny, P., 4.

Monticuliporoids, development of.—Cumings, E. R.

Montières-lès-Amiens (Somme).—Commont, V.

Montlivaultia.—Papp, K. von, 1 & 2; Tommasi, A.

Montmorillonite, origin of.—Thugutt, St. J., 2.

Montréjeau (Haute-Garonne).—Harlé, É., 5.

Monument Creek Group.—Richardson, G. B.

Monumenz (Carnic Alps).—Gortani, M.

Monzonite.—Lacroix, A. F. A., 2; Lapparent, J., de, 2; Lehmann, E.; Quensel, P. D.; Romanes, J.; Stieglitz, O.

Moon, surface of the.—Dahmer, G.

'Moorlog', Dogger Bank.—Stather, J. W., 2.

Mopsea.—Chapman, F., 5.

Moraines.—Klebelsberg, R. von, 3.

——, Cumberland.—Smith, Bernard, 2.

——, Dauphiné.—Kilian, C. C. W., 7.

——, Finland.—Sederholm, J. J., 3.

——, Germany.—Keilhack, L. H. K.; Tietze, O., 2; Werth, E.

—— Norway.—Œyen, P. A., 3, 6, & 11.

——, Posen.—Behr, J., 2.

——, Puget Sound.—Bretz, J. H.

——, Sefström Glacier.—Lamplugh, G. W.

——, Sweden.—Rekstad, J.

——, Switzerland.—Salomon, W., 4 & 5.

——, formation of terminal.—Hobbs, W. H.

——. *See also* Glacial deposits, *&c.*

Moravia.—Beck, H.; Kernthaler, A.; Kretschmer, F.; Remeš, M.; Rzehak, A., 2; Withers, T. H., 5.

Morbihan (France).—Tronquoy, R., 4.

Morcles, Dent de (Switzerland).—Lugeon, M.

Morena, Sierra (Spain).—Groth, G., 2.

Moreton, West (Queensland).—Wearne, R. A.

Morgan Mt. (Queensland).—Hart, G. S.

Morinda.—Engelhardt, H.

Morio.—Weaver, C. E., 2.

Morocco.—Brumder, E.; Dieckmann, W.; Douvillé, R., 4; Gentil, L., 1, 2, 5, & 6; Gin, G.; Malmejac, F.; Ogilvie, A. G.; Rubio y Muñoz, C.
Morte Slates, age of.—Evans, J. W., 6.
Morteratsch Glacier (Switzerland).—Buchanan, J. Y.
MORTIMER, J. R., *Obit.*—*See* Lamplugh, G. W., 5.
Mortonella.—Stefanini, G., 2.
Mortoniceras.—Pervinquière, L.; Schlagintweit, O.
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Mosasauria.—Osborn, H. F.
Mosbach (Hesse-Nassau).—Jooss, C. H.; Kinkelin, F., 2.
Mosbach Sand.—Schmidtgen, O.
Moschops.—Broom, R., 4.
Moscow (Russia).—Bogholubov, N. N., 3; Nikolaevskiĭ, F. A.; Sergěev, A. S.; Vinogradov, A.
Moseite.—Schaller, W. T., 21.
Mosses, Quaternary.—Dixon, H. N.
Mount Balfour Mining-Field (Tasmania).—Ward, L. K.
Mount Radiant Subdivision (N.Z.).—Webb, E. J. H.
Mount Royal Range (N.S.W.).—Benson, W. N.
Mount William Goldfield (Victoria).—Dunn, E. J., 4; Howitt, A. M.
Mountain, elevation of new Japanese.—Bailey, E. B., 2.
Mountain-chains, structure of.—Willis, B., 2.
Mourlonia.—Dietz, E.; Longstaff, J.
Mozambique.—Holmes, A., 2.
Mud, deposition of.—Owens, J. S.
——, transport of.—Steel, T.
Mud-volcanoes, Burma.—Bosworth, T. O., 2; Brown, J. C., 2; Craig, E. H. C.; Preiswerk, H.
Muleros, Cerro de (Chihuahua).—Böse, E., 3.
Mull, I. of (Hebrides).—Bailey, E. B.
Muluya R. (Morocco).—Termier, P., 6.
Muno (Luxemburg).—Fourmarier, P., 6.
Münzenberg (Wetterau).—Plank, A.
Murænosaurus.—Bogholubov, N. N.; Mehl, M. G., 2.
Mural engravings, Palæolithic.—MacCurdy, G. G.
Muraviev-Amursky Peninsula (Siberia).—Wittenburg, P. von, 2.
Murchison district (W. Austral.).—Glauert, L., 4.
Murchison Range (Transvaal).—Hall, A. L., 5.
Murchisonia.—Chapman, F., 8; Girty, G. H., 2; Leriche, M.; Priem, F.
Murchisoniidæ, Carboniferous.—Longstaff, J.
Murcia (Spain).—Adan de Yarza, R.; Sánchez Lozano, R., 2.
Murex.—Cerulli-Irelli, S., 2; Martin, K.; Toula, F.; Weaver, C. E., 2.
Murray R. (S. Australia).—Brown, H. Y. L.
Mürz Valley (Styria).—Heritsch, F., 3.
Mus.—Bate, D. M. A.
Muschelkalk.—Brändlin, E.; Disler, K.
Muscovite.—Baumhauer, H., 4; Tronquoy, R., 1 & 2.
Museums, Berlin.—Stremme, H., 3.
——, British (Natural History).—Hussakov, L.; Rendle, A. B.
——, the Geological & the Science.—Anon., 20.
——, Grange Wood (Croydon).—Leighton, D., 2.
——, HORNIMAN (Forest Hill).—Milligan, H. N.
——, Kelvingrove.—MacNair, P., 1–3.
——, Oxford University.—Allorge, M. M.
——, Practical Geology.—McLintock, W. F. P.; Teall, J. J. H., 2.
——, Vienna.—Mohr, H., 2.
——, 'WRENS' College.—Rastall, R. H.
Mustela.—Reynolds, S. H., 2; Stefano, Gius. de.
Mutiella.—Böse, E., 3.
Mutte Kopf (Lechtal Alps).—Ampferer, O., 6.
Myalina.—Born, A.; Girty, G. H.; Herrick, C. L.; Richthofen, F. von; Vernon, R. D.
Mycomya.—Johannsen, O. A.
Myers Creek Mining District (Washington).—Umpleby, J. B.
Mykonos (Cyclades).—Cayeux, L., 2.
Mylacrinæ.—Meunier, F., 2.
Myliobatis.—Savchenko, A. S.; Stefano, Gius. de, 2.
Mylonite.—Aloisi, P.; Sander, B., 3.
Mylor Series.—Flett, J. S., 4.
Mynydd-y-Gader (Merionethshire).—Lake, P.
Myoconcha.—Stefano, Giov. de; Tommasi, A.
Myophoria.—Clapp, C. H., 3; Cossmann, M.; Joleaud, L.; Richthofen, F. von; Stefano, Giov. di; Tommasi, A.
Myoporiphyllum.—Engelhardt, H.
Myrianites.—Delgado, J. F. N.
Myrica.—Engelhardt, H.; Fritel, P. H.
Myriolepis.—Traquair, R. H., 2.
Myriolites.—Bassler, R. S.
Myristica.—Knett, J.
Myrmecidium.—Vinassa de Regny, P., 2.
Myrmekite, origin of.—Tronquoy, R., 3.
Myrsine.—Engelhardt, H.
Myrtea.—Cossmann, M., 2.
Myrtophyllum.—Engelhardt, H.; Fritel, P. H.
Myrtus.—Engelhardt, H.
Mysidioptera.—Rassmuss, H.; Tommasi, A.
Mysore (India).—Balaji Rao, B., 1–4; Sampat Iyengar, P., 1–3; Sen, A. M.; Slater, H. K.; Smeeth, W. F., 1, 2, & 4; Venkataramaiya, B. N.; Wetherell, E. W.; *see also* MYSORE, Geol. Dept.

Mysore, Geol. Survey.—Jayá Ram, B.; Smeeth, W. F., 3.
Mytiliconcha.—Tommasi, A.
Mytilus.—Gortani, M.; Weaver, C. E., 2.

Närke (Sweden).—Post, L. von.
Näsberget (Westerbotten).—Geijer, P., 3.
Nageiopsis.—Berry, E. W.
Nagybáród (Hungary).—Lázár, V.
Nagyberek Moor (Hungary).—Kormos, T., 7
Naiadites.—Hind, W., 2.
Naklite.—Berwerth, F., 3.
Nama System.—Rogers, A. W., 2.
Namur (Belgium).—Fourmarier, P., 2 & 4.
Nanaimo Coalfield (Vancouver).—Clapp, C. H.
Nantes (Loire-Inférieure).—Bureau, L.; Ferronnière, G.
Nantua (Ain).—Delebecque, A.; Riche, A., 1 & 2.
Napæa.—Schrammen, A.
Napf (Berne).—Nussbaum, F.
Naphtha, Baku.—Kalitzki, K., 2.
——, Caucasus.—Ryabinin, A. N., 3.
Naples (Italy).—Kranz, W., 4.
——, Bay of.—Andrée, K.; Walther, J. K.
Naraoia.—Walcott, C. D.
Narenta Valley (Dalmatia).—Schubert, R. J.
Narragansett Basin (Rhode I.)—Lahee, F. H., 2.
Narzan (Russia).—Ogilvi, A. N.
Nassa.—Cerulli-Irelli, S., 2.; Weaver, C. E., 2.
Nassarina.—Toula, F.
Nassau (Germany).—Fischer, K.; Fresenius, H.; Singewald, J. T., *fil.*, 2.
Natal.—Arber, E. A. N.; Hatch, F. H., 1 & 5.
Nathorstia.—Walcott, C. D.
Natica.—Böse, E., 1–3; Guppy, R. J. L., 2.
Naticopsis.—Dietz, E.; Herrmann, F., 3; Kindle, E. M., 4.
——, growth-stages in.—Girty, G. H., 3.
Natrolite.—Dürrfeld, V., 2.
Natural bridges, Wyoming.—Barnett, V. H.
Natural monuments.—Gregorio, A. de, 2; Dollfus, G. F.
Nautiloidea, Carboniferous.—Hind, W.
Nautilus.—Arthaber, G. von, 2; Krenkel, E.; Schlagintweit, O.; Till, A., 2; Vogl, V.
——, deformity in.—Lösch, K. C. von.
——, fossil & living.—Horwood, A. R., 7.
Navajo County (Arizona).—Foote, W. M.
Navarre.—Carez, L., 3.
Navy I. (New Brunswick).—Hahn, F. F., 2.
Neæra.—Kaldhol, H.
Neagh, Lough (Ireland).—Cole, G. A. J., 4.
Neanderthal type of man.—See *Homo.*
Nebraska (U.S.A.).—Barbour, E. H.; Todd, J. E., 3.
Nelson (B.C.).—Le Roy, O. E., 2.
Nelson (N.Z.).—Bell, J. M., 2.
Nelumbites.—Berry, E. W.
Nelumbium.—Engelhardt, H.
Nemastomoides.—Pocock, R. I.
Nematophyllum.—Garwood, E. J.
Nematopora & *Nematotrypa.*—Bassler, R. S.
Nemocardium.—Cossmann, M., 2.
Nemonien (East Prussia).—Kaunhowen, F.
Nemi, Lake (Romagna).—Meli, R., 2.
Neobolites.—Schlagintweit, O.
Neocolemanite.—Eakle, A. S., 2; Hutchinson, A., 3.
Neocomian.—Höhne, E.; *see also* Cretaceous.
Neofusulinella.—Deprat, J., 2.
Neohibolites.—Stolley, E., 1 & 2.
Neolenus.—Walcott, C. D.
Neolithic Man.—See *Homo.*
Neomegalodus.—Rassmuss, H., 3; Stefano, Giov. di.
Neomys.—Kormos, T., 5.
Neotrigonia.—Cossmann, M.
Nepheline.—Schaller, W. T., 17.
Nepheline-rocks.—Benson, W. N.; Lacroix, A. F. A., 15; Rachkovskiĭ, I. P., 3.
Nepheline-syenite boulder, Atlantic.—McRobert, Lady R. W.
Nephelinite, New Zealand.—Marshall, P., 2.
Nephelite.—Bowen, N. L., 1 & 2; Foote, H. W., 2; Schaller, W. T., 3.
Nephrite.—Finckh, L.; Schreiter, R.; Uhlig, J., 2; Welter, O. A., 2.
Neptunite.—Schaller, W. T., 12.
Nereites.—Delgado, J. F. N.; Malaise, C. H. G. L., 3.
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Neritina.—Böse, E., 3.
Neritinium.—Engelhardt, H.
Neritopsis.—Haas, O.
Nesles (Pas-de-Calais).—Lavocat, P.
Netherlands.—*See* Holland.
Neuchâtel (Switzerland).—Breynaert, F.
Neuengamm (Hamburg).—Kört, W.
Neufchâteau (Luxemburg).—Asselbergs, E., 2.
Neufchâtel-en-Bray (Seine-Inférieure)—Dubus, A.; Negre, G., 2.
Neumark district (Brandenburg).—Klautzsch, A.
Neumayria.—Burckhardt, C.
Neuropteridium.—Fliche, P.
Neuropteris.—Arber, E. A. N., 3, 4, & 7; Vernon, R. D.
Neustadt a. Rubenberge (Hanover).—Harbort, E.

Neustadt (Saxe-Weimar). — Kolesch, K.
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Nevis, Ben (Scotland).—Gregory, J. W., 6.
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New Pomerania.—Sapper, K. I.
New South Wales. — Benson, W. N.; Browne, W. R.; Carne, J. E., 1 & 2; David, T. W. E.; Howchin, W., 2; Jensen, H. I., 1 & 2; Walkom, A. B.; Woolnough, W. G.; *see also* NEW SOUTH WALES, Geol. Surv.
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Ngape (Burma).—Cotter, G. de P.
Niagaran Formation.—Lahee, F. H., 3.
Nias I. (Dutch East Indies).—Douvillé, H., 2.
Nicaragua.—Hershey, O. H., 3.
Nicholsonella.—Bassler, R. S.
Nickel-ores.—Rose, J. G.
Nicoya Peninsula (Costa Rica). — Romanes, J., 2.
Nicropsylla.—Cockerell, T. D. A., 2.
Nienburg a. Weser (Hanover). — Harbort, E.
Niesen (Berne).—Beck, P.
Niger R. district.—Garde, G.
Nigeria.—Evans, J. W., 4; Falconer, J. D., 1 & 3; Hawkins, H. L., 3.
'Night Wells.'—Maclaren, J. M.
Nigranden (Courland).—Ryabinin, V.
Nijné-Lomoff (Penza).—Krasovskiĭ, A.
Nile Bed, Khartum.—Andrews, C. W., 2.
NILES, W. H., *Obit.*—*See* Anon., 13.
——. *Bibliography.*—Barton, G. H.
Nileus.—Raymond, P. E.
Nilssonia.—Berry, E. W.; Krishtofovich, A. N.; Seward, A. C., 3; Thomas, H. Hamshaw.
Niobotantalates. — Lacroix, A. F. A., 18.
Niobotantalotitanates, radioactive. — Lacroix, A. F. A., 9.
Niobotitanates.—Lacroix, A. F. A.
Niobrara Group.—Sternberg, C. H.
Niort (Deux-Sèvres).—Zeiller, R.
Nizina district (Alaska).—Moffit, F. H., 2.
Nodosaria.—Böse, E., 3; Canavari, I.; Vadász, M. E., 2.
Nœggerathiopsis.—Gothan, W., 4.
Nördlingen (Bavaria). — Branca, C. W. F., 2.
Nördlingen (Luxemburg).—Schmidt, R. R.
Noma Peninsula (Japan). — Yokoyama, M.
Nomenclature, clays.—Dittler, E., 3.
——, crystallographic. — Rinne, F., 4; Saurel, P.
——, mineral.—Washington, H. S., 2.
——, misappropriation in.—Gregory, J. W.
——, palæobotanical. — Potonié, H., 4.
——, physiographical. — Cairnes, D. D., 2.
——, priority in.—Nutting, C. C.
——, stratigraphical.—Bather, F. A., 4; Jukes-Browne, A. J.; Lang, W. D.
——, Swiss geographical.—Fleury, E.
——, term 'Quaternary.'—Gillman, F., 2; Irving, A., 5.
Nonionina. — Canavari, I.; Vadász, M. E., 2.
Norberg (Sweden).—Adan de Yarza, R., 2.
Norcia (Umbria).—Principi, P.

Nord (France).—Barrois, C., 1, 3, & 5; Broussier, F.; Carpentier, A., 1–3, & 5; Gosselet, J. A. A., 7 & 8; Mettrier, —; Pagniez, —, 1 & 3; Pruvost, P., 1 & 3.
NORDENSKIŒLD, A. E., *Obit.* — *See* Sjögren, H., 2.
Nordfjord (Norway).—Kaldhol, H.
Nordmarkite.—Quensel, P. D.
Norfolk.—Anon., 21; Bonney, T. G., 4; Clarke, W. G.; Cockrill, H. W.; Withers, T. H., 3.
Norite.—Siemiradzki, P.; Thomson, J. A., 4; Wild, L. J.
Norites.—Arthaber, G. von, 2.
Normandy.—Nègre, G., 2; Nopcsa, F.
Norrbotten (Sweden).—Adan de Yarza, R., 2; Geijer, P., 2; Hamberg, A.; Lidén, R.; Sundius, N., 1 & 2.
North Carolina.—*See* Carolina.
North Pole Expedition of G. E. PEARY.—Drygalski, E. von.
North Sea coast, German.—Gagel, C.
Northumberland.—Haselhurst, S. R.
North Westland (N.Z.).—Morgan, P. G.
Norway.—Björlykke, K. O., 1–3; Goldschmidt, V. M., 6; Hansen, A. M.; Holtedahl, O., 2; Kaldhol, H.: Königsberger, J., 5; Kolderup, C. F., 2, 3, 5, & 6; Œyen, P. A., 1–13; Okstinderne, A., 2; Rekstad, J., 1–3; Reusch, H. H.; Smith, H. G.; Törnbohm, A. E.; Vogt, T., 3; Watson, T. L., 2; Werenskiold, W., 2.
——, Geological Society of.—Björlykke, K. O., 4.
—— (Northern), elevation & depression of.—Vogt, J. H. L.
Norwich (Norfolk).—Anon., 21; Withers, T. H., 3.
Notidanus.—Savchenko, A. S.; Stefano, Gius. de, 3; Woodward, A. S., 3 & 4.
Nototherium.—Glauert, L.
Notothyris.—Richthofen, F. von.
Nottinghamshire.—Arber, E. A. N., 3; Lamplugh, G. W., 8; Smith, Bernard, 3 & 4.
Nova Scotia.—Bell, W. A.; Fairibault, E. R.; Fréchette, H.; McCallum, A. L.; Piers, H., 1 & 2; Porter, J. B.; Prest, W. H., 1 & 2; Rickard, T. A.; Williams, M. Y.; Wright, W. J.
Novocherkask (Russia). — Boghachev, V. V.
Nucleospira.—Gortani, M.; Kindle, E. M., 4.
Nucula.—Böse, E., 3; Girty, G. H.; Gortani, M.; Herrmann, F., 3; Kindle, E. M., 4; Steinmann, J. H. C. G. G., 7; Vernon, R. D.
Nuculites.—Kindle, E. M., 4.
Nuculopsis.—Girty, G. H.
Nulvi (Sardinia).—Pilotti, C.
Nummulites. — Douvillé, H., 2 & 3; Fabiani, R.; Ravagli, M.
Nummulitic rocks.—Douvillé, R., 2.
Nyasaland.—Evans, J. W., 4.
Nyitra (Hungary).—Kormos, T., 11.
Nylstroom (Transvaal).—Mellor, E. T.
Nythosaurus—Broom, R., 3 & 6.

Oahu I. (Pacific).—Hitchcock, C. H.
Oatland (I. of Man).—White, F. W.
Oberhalbstein (Grisons).—Steinmann, J. H. C. G. G., 5.
Obira (Japan).—Goldschmidt, V., 3.
Obolus. — Priem, F.; Walcott, C. D., 2.
Observatory Inlet (B.C.). — McConnell, R. G.
Obsidian-pebbles.—Merrill, G. P.
Ocadia.—Dacqué, E., 2.
Oceanic deposits.—Peach, B. N., 2; Philippi, E.
Oceans, geochemistry of.—Clarke, F. W.
——, magnetism of.—Bergeat, A.
Octonaria.—Kindle, E. M., 4.
Oculina.—Toula, F., 2.
Oculospongia. — Vinassa de Regny, P., 2.
Odaraia.—Walcott, C. D.
Odenwald (Hesse).—Klemm, G., 4.
Oder R. district (Prussia).—Tietze, O., 2.
Odontaspis.—Stefano, Gius. de, 2 & 3.
Odontocephalus.—Kindle, E. M., 4.
Odontogyrorbis.—Lörenthey, I. von.
Œdischia.—Meunier, F., 3.
Œgel Lake (Brandenburg), new island in.—Potomié, H., 5.
Œnsingen (Solothurn). — Delhaes, W., 2.
Oesia.—Steinmann, J. H. C. G. G., 6.
Œtzthal Alps (Austria). — Gruber, O. Klebelsberg, R. von, 5.
Ofnet cave (Nördlingen). — Schmidt, R. R.
Oglis Valley (N. Italy).—Wilckens, R.
Ogygia. — Steinmann, J. H. C. G. G., 7.
Ogygites.—Raymond, P. E.
Ohio (U.S.A.). — Cushing, H. P., 2; Hussakov, L.; Hyde, J. E.; Kindle, E. M., 3; Prosser, C. S.; Ulrich, E. O.
Ohio Sands, petrographic character of.—Condit, D. D.
Oidospora.—McLean, R. C.
Oil.—*See* Petroleum.
Oilfield geology.—Bosworth, T. O.
Oil-regions, temperature in.—Höfer, H. von.
Oise (France).—Dubus, A.
Ojców (Poland).—Kiernik, E.
Ojo Alamo Beds.—Brown, B.
Oki Is. (Japan).—Kôgu, S., 2.
Oklahoma (U.S.A.).—Campbell, M. R.; Girty, G. H.; Gould, C. N., 1 & 2; Moodie, R. L., 2; Snider, L. C.; Woodworth, J. B.
Oklahoma Red Beds.—Beede, J. W., 1 & 2.

Okstinderne Mt. (Norway). — Hoel, A., 2.
Olasztelek (Transylvania). — Szentpétery, S. von, 2.
Olcostephanus.—Sauvage, H. E., 3.
Old Red Sandstone, Forfar.—Hickling, G., 1 & 2.
——, Kincardine.—Campbell, R., 1 & 4.
——, Ross-shire, Peach, B. N., 4.
——, Staffordshire.—King, W. W.
——, Wales (S.).—Strahan, A., 2.
Oleacina.—Jooss, C. H., 2.
Olenidæ.—Holtedahl, O.
Olenopsis.—Walcott, C. D., 3.
Olenus.—Holtedahl, O.
Oligocene, Algeria.—Joleaud, L.
——, Belgium. — Mourlon, M. F., 2; Rutot, A. L., 2.
——, Dorset. — Bloomfield, A. H.; Keeping, H.
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——, Galicia.—Rogola, W.
——, Germany.—Höhne, E.; Köhne, W., 2; Krause, P. G., 2; Linstow, O. von, 2; Schmierer, T.; Weingärtner, R. M.; Wittich, E., 7.
——, Venetia.—Fabiani, R.
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Oligoporella.—Pia, J. von.
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Olivetta (Liguria).—Taramelli, T.
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Olt Valley (Rumania). — Popescu-Voitesti, I., 2.
Omosaurus.—Nopcsa, F.
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Omphalophloios.—Cambier, R., 2.
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Omphalosagda.—Jooss, C. H.
Onairo Series (N.Z.).—Clarke, E. de C.
Onaping (Ontario).—Collins, W. H.
Onchometopus.—Raymond, P. E.
Onchus.—Priem, F.
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Oncotocchus.—Schrammen, A.
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Onondaga fauna.—Kindle, E. M., 4.
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Onychiopsis.—Berry, E. W.
Onychocella.—Canu, F.
Oolite, Aargau.—Brändlin, E.
——, Poland.—Siemiradzki, J.
Oolite, Yorkshire.—Buckman, S. S., 2; Richardson, L., 5.
——, Pennsylvania.—Moore, E. S., 1 & 3.
——. *See also* Jurassic, *&c.*
Oolite, siliceous.—Brockmeier, H., 2; Ziegler, V.
Oolitic iron-ore deposits, France. — Cayeux, L.; Lemoine, P., 2; Sudry, L.
Opabinia.—Walcott, C. D.
Opal.—Bauer, M., 2.
Opetionella.—Kolb, R.
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Optic axes.—Panebianco, R., 2.
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—— ——, Washington.—Weaver, C. E.
—— ——, detrital.—Collins, J. H., 3.
—— ——, divining-rod and. — Reusch, H. H., 2.
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—— ——, geochemistry of.—Clarke, F. W.
—— ——, replacement.—Knox, H. H.; Stevens, B.
—— ——. *See also* Veins, *&c.*
Oregon (U.S.A.). — Hayes, C. W., 2; Miller, L. H.; Smith, J. P., 2.
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Oreodaphne.—Engelhardt, H.; Krishtofovich, A. N., 4.
Oreopanax.—Fritel, P. H.
Orestes.—Girty, G. H.
Orford (Quebec).—Harvie, R.
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——, Massachusetts.—White, D., 2.
——, Tyrol.—Kerner, F. von, 3.
——, traces of fossils in.—Rzehak, A., 2.
Phyllites.—Engelhardt, H., 2; Seward, A. C., 5.
Phylloblatta.—Bolton, H.
Phylloceras.—Böhm, G., 2; Burckhardt, C.; Haas, O.; Joleaud, L.; Krenkel, E.; Lemoine, F.; Pervinquière, L.; Rassmuss, H., 3; Till, A.
Phyllocladoxylon.—Thomas, H. Hamshaw.
Phyllodictya.—Bassler, R. S.
Phyllodocites.—Delgado, J. F. N.
Phyllopoda, Arenig.—Woodward, H.
——, Carboniferous.—Pruvost, P.; Stainier, X., 3.

Phylloporina.—Cumings, E. R.
Phyllotheca.—Halle, T. G.
Phymosoma.—Böse, E., 3.
Physaster.—Lambert, J.
Physiography, new terms in.—Cairnes, D. D., 2.
——, text-book.—Smith, Bernard.
Physoporella.—Pia, J. von.
Pias (Portugal).—Choffat, P., 5.
Piatra-Rosie (Rumania). — Cantuniari, S.
Pic du Midi d'Ossau (Basses-Pyrénées). —Lapparent, J. de.
Picardy.—Leriche, M., 3.
Picea.—Engelhardt, H.
Piceoxylon.—Gothan, W.
Pickeringite.—Hess von Wichdorff, H., 4.
Picrite.—Reid, C., 3.
Picrite-teschenite.—Tyrrell, G. W.
Piedmont (Italy). — Catani, R.; Dervieux, E.; Müller, F. C.; Novarese, V., 2; Prever, P. L.; Sacco, F.
Piedmont geosyncline.—Argand, E., 7.
Pikermi (Greece).—Abel, O., 6.
Pillow-lava, Argyll.—Peach, B. N., 5.
—— ——, Cornwall.—Flett, J. S., 4,
—— ——, Mayo.—Gardiner, C. I., 2.
—— ——, Sweden.—Sundius, N.
Pinakodendron.—Cambier, R., 2.
Pinites.—Seward, A. C., 2 & 3.
Pinna.—Böse, E., 1 & 3; Chapman, F., 5; Herrick, C. L., 2; Krenkel, E.; Tommasi, A.; Vogl, V.
Pinnaroo (S. Australia). — Brown, H. Y. L.
Pinus.—Berry, E. W.; Engelhardt, H.; Gothan, W., 2; Krishtofovich, A. N.
Piperno.—Sabatini, V.
Pisa (Italy).—Andreucci, A.; Ugolini, R., 2.
Pisces, Carboniferous. — Chapman, F., 12; Traquair, R. H., 1 & 2; Woodward, A. S., 5.
——, Cretaceous. — Erasmo, G. d'; Johnson, D. W.; Leriche, M., 3; Moodie, R. L., 4; Woodward, A. S., 3 & 4.
——, Devonian.—Hussakov, L., 1 & 2; Woodward, A. S., 8.
——, Jurassic. — Chapman, F., 12; Woodward, A. S., 2.
——, Mesozoic.—Eastman, C. R., 2.
——, Miocene. — Lörenthey, I. von; Priem, F., 2; Schubert, R. J., 4.
——, Palæozoic.—Dean, B.; Traquair, R. H., 4.
——, Permian.—Karpinsky, A.; Woodward, A. S.
——, Pliocene.—Stefano, Gius. de, 4.
——, Portlandian. — Bogholubov, N. N., 3.
——, Silurian.—Priem, F.
——, Tertiary. — Barbolani di Montauts, G.; Canavari, I.; Eastman, C. R., 2; Savchenko, A. S.; Stefano, Gius. de, 2 & 3.
Pisces, Trias.—Eastman, C. R.; Woodward, A. S., 7.
——, egg-capsules of Carboniferous.—Jackson, J. W.
Pisidium.—Cossmann, M., 2; Kennard, A. S.
Pisonia.—Engelhardt, H.
Piszke (Hungary).—Vogl, V.
Pitea Elf (Norrbotten).—Lidén, R.
Pitchblende, Bohemia.—Jaffé, R.
——, radium content of.—Krusch, P.
Pithecanthropus.—Keith, A., 2; Munro, R.
—— Beds, Java.—Stremme, H.
Pithodea.—Dietz, E.; Longstaff, J.
Pitscottie (Fife).—Craig, R. M., 2.
Pityophyllum.—Krishtofovich, A. N.; Seward, A. C., 2 & 3.
Piura (Peru).—Valencia, A. R., 3.
Pizarroa. — Steinmann, J. H. C. G. G., 7.
Placenticeras. — Herrick, C. L., 2; Johnson, D. W.
Placer-deposits.—Burroughs, W. G.
—— ——, Alaska. — Moffit, F. H.; Smith, P. S.
—— ——, United States. — Hayes, C. W., 2; Lakes, A.
—— ——. *See also* Gold.
Placodus.—Broili, F.
Placuanomia.—Chapman, F., 5.
Placunopsis.—Tommasi, A.
Plagiocardium.—Cossmann, M., 2.
Plagionite.—Zambonini, F., 2.
Plains, North American. — Keyes, C. R.
Planera.—Kafka, J.
Planorbis.—Halavâts, G. von; Jooss, C. H., 2; Kennard, A. S.; Lörenthey, I. von.
Plantæ, Carboniferous. — Arber, E. A. N., 2-9; Bertrand, P., 1 & 2; Broussier, F.; Cambier, R., 2; Carpenter, A., 1 & 5; Couyat, J., 2; Gordon, W. T., 1 & 2; Johnson, T., 1 & 2; Johnstone, M. A.; Jongmans, W.; Kidston, R., 1 & 2; Potonié, H., 3; Pussenot, C., 3; Renier, A., 2; Scott, D. H., 2; Thomas, H. Hamshaw, 2; Vernon, R. D.; Vinassa de Regny, P., 8.
Plantæ, Cretaceous.—Berry, E. W., 1, 2, 4, & 6; Böhm, J., 2; Johnson, D. W.; Litvinov, D. I.; Stevens, N. E.; Stopes, M. C. C., 4.
——, Devonian.—Halle, T. G.; Steinmann, J. H. C. G. G., 3.
——, Eocene.—Fritel, P. H.; Hollick, A.; Oppenheim, P.
——, Jurassic.—Gothan, W., 1 & 5; Krishtofovich, A. N.; Lignier, O.; Nathorst, A. G., 1, 2, & 4; Novopokrovskiĭ, I.; Seward, A. C., 1-3 & 7; Thomas, H. Hamshaw, 1 & 3; Viguier, R.; Zeiller, R.
——, Miocene. — Laurent, L., 2; Nowak, J., 2.

Plantæ, Palæozoic.—Groom, P.; Lewis, F. J.; Prankerd, T. L.; Yakovlev, S. A.

——, Permian.—Bertrand, P., 3; Frič, A.; Hardaker, W. H.; Schuster, J., 3.

——, Permo-Carboniferous.—Arber, E. A. N.; Gothan, W., 4; Halle, T. G.; Seward, A. C., 4.

——, Pliocene.—Laurent, L.

——, Quaternary.—Berry, E. W., 5; Krishtafovich, N. I.; Lewis, J.; Menzel, P.; Post, L. von, 2; Reid, C.; Stark, P.; Stoller, J.

——, Rhætic.—Gothan, W., 5.

——, Silurian.—Chapman, F., 11.

——, Tertiary.—Engelhardt, H., 1 & 2; Gothan, W., 1 & 2; Jongmans, W.; Kafka, J.; Kidston, R., 3; Krishtofovich, A. N., 3 & 4; Moss, C. E.; Seward, A. C., 5; Tuzson, J. Viguier, R., 2.

——, Trias.—Bertrand, P., 4; Fliche, P.; Gothan, W.; Jeffrey, E. C.; Tuzson, J.; Wherry, E. T., 2.

——, Wealden.—Zobel, R.

——, evolution of.—Lignier, O., 2.

——, structure of.—Nathorst, A. G., 3.

——. *See also* Algæ, Palæobotany, *&c.*

Plata, La (S. Am.).—Cardosa, A.

Plataginopsis.—Berry, E. W.

Platanus.—Engelhardt, H., 2.

Plateau, British East African.—Collie, G. L.

Plateau-gravels.—Hull, E., 2.

Plateau plains, New Mexico.—Keyes, C. R., 3.

'Platin,' Aldabra I.—Fryer, J. C. F.

Platinum, Russia.—Perret, L.

——, United States.—Hayes, C. W., 2; Lindgren, W.

——, Ural Mts.—Duparc, L., 1 & 2; Pina de Rubies, S.

——, analysis of.—Karpov, B.

Platyceras.—Gortani, M.; Herrmann, F., 3; Kindle, E. M., 4.

Platychonia.—Kolb, R.

Platycrinus.—Wright, *J. fil.*

Platyostoma.—Gortani, M.; Kindle, E. M., 4.

Plauen (Saxony).—Hausse, R.

Plebecula.—Jooss, C. H., 2.

Plecia.—Cockerell, T. D. A., 2.

Plectambonites.—Reed, F. R. C., 4.

Plectascus.—Schrammen, A.

Plectoceras.—Ruedemann, R.

Plectrodus.—Priem, F.

Plectroninia.—Welter, O. A.

Pleinmont Grit (Guernsey).—Bonney, T. G., 5.

Pleistocene, Alaska.—Moffit, F. H., 2.

——, Barcelona.—Gil, M. P.

——, Cornwall.—Flett, J. S., 4.

——, Crete.—Bate, D. M. A.

——, Dakota (South).—Shimek, B., 2.

——, Essex.—Picton, H. Warren, S. H.

Pleistocene, Hungary.—Gaál, S. von; Kormos, T., 1, 6, 9–11; Weiss, A.

——, Iowa.—Tilton, J. L.

——, Italy.—Sacco, F., 2.

——, Kent.—Priest, S.

——, Lampedusa I.—Nelli, B.

——, Maryland.—Miller, B. L., 2.

——, Moldavia.—Sevastos, R.

——, Norway.—Œyen, P. A., 11.

——, Prussia (East).—Hess von Wichdorff, H., 6; Mengel, H., 2.

——, Virginia.—Berry, E. W., 5.

—— climate, Germany.—Schulz, A.

—— faunas.—Hay, O. P.

—— formations, mingling of.—Shimek, B., 3.

——. *See also* Quaternary, *&c.*

Pleochroic haloes, radioactivity and.—Hövermann, G.

Pleochroism.—Crook, T., 2.

'*Plesiechinus.*'—Hawkins, H. L.

Plesioptygmatis.—Böse, E., 2.

Plesiosauria.—Mehl, M. G., 2; *see also* Reptilia.

Plesiosaurian propodial, embryonic.—Moodie, R. L., 5.

Plesiosiro.—Pocock, R. I.

Pleurochorium.—Schrammen, A.

Pleurocœlus.—Lull, R. S., 2.

Pleurodictyum. — Cumings, E. R.; Herrmann, F., 3; Kindle, E. M., 4.

Pleurodira.—Kinkelin, F.

Pleuromeia.—Fliche, P.

Pleuromya.—Papp, K. von; Stefano, Giov. di.

Pleuronectidarum.—Schubert, R. J., 4.

Pleurope, Pleuropyge, Pleurostoma, Pleurothyris, & *Pleurotrema.* — Schrammen, A.

Pleurophorus.—Herrick, C. L.; Richthofen, F. von.

Pleuroploca.—Cerulli-Irelli, S., 2.

Pleurotoma. — Böse, E.; Chapman, F., 2; Toula, F., 1 & 2; Weaver, C. E., 2.

Pleurotomaria.—Dietz, E.; Haas, O.; Herrick, C. L.; Kindle, E. M., 4; Leriche, M.; Longstaff, J.; Oppenheim, P.; Pilsbry, H. A.; Richthofen, F. von; Ryabinin, V.

Plicatula.—Böse, E., 3; Schlagintweit, O.; Tommasi, A.

Pliocene, Ain.—Laurent, L.

——, Algeria.—Joleaud, L.

——, America (Central).—Toula, F.

——, Cornwall.—Flett, J. S., 4.

——, Dauphiné.—Kilian, C. C. W., 7.

——, East Anglia.—Bell, A.

——, Germany.—Krause, P. G., 2.

——, Hungary. — Gaál, S. von, 2; Vitalis, S., 2.

——, Italy.—Dal Piaz, G., 3; Principi, P., 2; Sacco, F., 2.

——, Rumania.—Teisseyre, W.

——, Sweden.—Holst, N. O.

——, Western Europe.—Tesch, P.

——. *See also* Red Crag, *&c.*

Pliomera.—Steinmann, J. H. C. G. G., 7.
Pliosaurus.—Bogholubov, N. N.
Plocoscyphia.—Schrammen, A.
Pluckley (Kent).—Lamplugh, G. W., 9.
Plumbojarosite. — Butler, B. S., 3; Schaller, W. T., 21.
'Plutonio.'—Issel, A., 4.
Po Valley (Italy).—Munro, R.
Poacites.—Engelhardt, H., 1 & 2.
Podocarpus.—Engelhardt, H.
Podocnemis.—Dacqué, E., 2.
Podolia (Russia).—Selskiĭ, V. A.
Podolite.—Rogers, A. F., 3.
Podozamites.—Berry, E. W.; Krishtofovich, A. N.; Seward, A. C., 2 & 3; Thomas, H. Hamshaw.
Pœcilitocaulon & *Pœcilitostachys.* — Fliche, P.
Pœcilospondylus.—Case, E. C., 2.
Pöstyén (Hungary).—Horusitzky, H.
Poitou (France).—Welsch, J., 5.
Pokolbin (N.S.W.).—Browne, W. R.
Pola (Istria).—Waagen, L.
Poland.—Kiernik, E.; Koroniewicz, P.; Siemiradzki, J.
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Pollux, Elba.—Vogt, T., 2.
Poltavian stage.—Krishtofovich, A. N., 3.
Polychæta, Rhætic.—Horwood, A. R., 2.
Polychroism.—Lacroix, A. F. A., 13.
Polycotylus.—Bogholubov, N. N., 1 & 5.
Polygnathus.—Kindle, E. M., 4.
Polymorphism.—Königsberger, J., 7; Washington, H. S.
Polymorphites.—Buckman, S. S.
Polyplacophora, Eocene.—Hull, A. F. B.
——, Liassic.—Fucini, A., 5.
Polyplectus.—Renz, C., 6.
Polypora.—Gortani, M.; Vinassa de Regny, P., 4.
Polyptychites.—Burckhardt, C.; Douvillé, R.; Stolley, E., 3.
Polyrhizophora.—Kolb, R.
Polystigmatium & *Polythyris.* — Schrammen, A.
Polystomella.—Vadász, M. E., 2.
Polytrema.—Silvestri, A., 2.
Polytropis.—Dietz, E.
Polyzoa, Carboniferous.—Lee, G. W.; Munro, M.
——, Cretaceous. — Brydone, R. M.; Peron, A.
——, Devonian.—Gortani, M.; Kindle, E. M., 4.
——, Palæozoic.—Bassler, R. S.
——, Silurian.—Whiteaves, J. F.
——, Tertiary.—Canu, F.; Chapman, F., 5.
——, Trias.—Papp, K. von, 2; Vinassa de Regny, P., 4.
——, development of.—Cumings, E. R.
Polyzoa marls, Piszke.—Vogl, V.
Pomatia.—Kormos, T., 8.
Pomerania. — Hess von Wichdorff, H., 7 & 8; Jentzsch, C. A., 2; Keilhack, L. H. K., 2; Kranz, W.; Linstow, O. von, 3.
Ponder's End (Middlesex).—Warren, S. H.
Pondoland.—Broom, R., 11.
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——, Moldavia.—Sevastos, R.
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Populus.—Berry, E. W.; Engelhardt, H.
Porana.—Engelhardt, H.; Kafka, J.
Porella.—Canu, F.
Porifera, Cambrian.—Walcott, C. D., 6.
——, Carboniferous. — Girty, G. H.; Smith, J.
——, Cretaceous.—Ortmann, P.; Schrammen, A.; Welter, O. A.
——, Devonian.—Fraipont, C., 2.
——, Jurassic.—Hinde, G. J.; Kolb, R.
——, Triassic.—Vinassa de Regny, P., 2 & 3.
——, Palæozoic.—Hinde, G. J.
Porina.—Canu, F.
Porites.—Oppenheim, P.
Porocystis.—Böhm, J., 2.
'Poros' (Delos).—Cayeux, L., 2.
Porosphærella.—Welter, O. A.
Porospongia.—Kolb, R.
Porphyrite, Argentina.—Stieglitz, O.
——, Colombia.—Lehmann, E.
——, Piedmont.—Müller, F. C.
——, Scotland.—Barrow, G. S.
——, Tyrol.—Hammer, W., 2.
Porphyroid.—Sander, B., 3.
Porphyry, Armenia.—Tanatar, J.
——, Breckenridge district.—Ransome, F. L.
——, Caucasus.—Schafarzik, F.
——, Colorado.—Ransome, F. L.
——, Gasteren.—Truninger, E.
——, New Zealand.—Wild, L. J.
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——, Var.—Lévy, Alb. M.
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——, submerged river-valleys off coast of.—Hull, E.
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Post, H. von, *Obit.*—*See* Sernander, R.
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—— climatic changes, Scandinavia.—Sernander, R., 3.
—— erosion & oxidation.—Wright, G. F.
Post-Pliocene. *See* Quaternary.
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——, Sweden.—Horne, J.
——. *See also* Archæan.
Precious stones, artificial production of.—Hugi, E.
——, behaviour in ultra-violet light.—Löhr, A. von.
Predazzo (Tyrol). — Hörnes, R., 4; Penck, W.
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Prionotropus.—Johnson, D. W.
Priopsis.—Herrick, C. L., 2.
Pristerognathus.—Broom, R., 6.
Proboscidea.—Khomenko, I.; Schlesinger, G.
Procardia.—Canavari, I.
Procolophon.—Huene, F. von, 2.
Procolophonidæ, Triassic.—Huene, F. von.
Prodicynodon.—Broom, R., 6.
Productella.—Gortani, M.; Kindle, E. M., 4.
Productus.—Garwood, E. J.; Girty, G. H.; Nechaev, A. V.; Vadász, M. E.
Proetus.—Born, A.; Herrmann, F., 1 & 3.
Prohyracodon.—Abel, O.
Propalæotherium.—Haupt, O.
Propappus.—Broom, R., 10.
Propaszta (Transylvania).—Vargha, G.
Proptychites.—Arthaber, G. von.
Prosothenia.—Halaváts, G. von; Kormos, T., 6.
Prosqualodon.—Abel, O., 2.
Proterocidaris.—Jackson, R. T.
Protetraclis.—Kolb, R.
Protichnites.—Walcott, C. D., 4.
Protoblattina.—Meunier, F., 2.
Protocardia.—Böse, E., 3; Krenkel, E.
Protocedroxylon.—Gothan, W.

Protoceratherium.—Abel, O.
Protocrisina.—Bassler, R. S.
Protocycloceras.—Girty, G. H.
Protopiceoxylon.—Gothan, W.
Protozoa.—*See* Rhizopoda, Foraminifera, *&c.*
Protrachyceras.—Salopek, M.
Protrachytes.—Burckhardt, C., 2.
Protula.—Böse, E.
Prussia.—Beyschlag, F. H. A., 1 & 2.
—— (East).—Hess von Wichdorff, H., 1 & 6; Jentzsch, C. A., 9; Klein, G.; Krause, P. G.; Menzel, H., 2; Preuss, H.; Tornau, F.; Tornquist, A.
—— (West).—Jentzsch, C. A., 9; Preuss, H.
Prusskaya-Daghestankaya (Kuban).—Charnotzkii, S.
Psaronius.—Carpentier, A., 5; Frič, A.
Psephophorus.—Dacqué, E., 2.
Pseudocardium.—Weaver, C. E., 2.
Pseudocatillus.—Lörenthey, I. von.
Pseudodiadema.—Böse, E., 3.
Pseudohornera.—Bassler, R. S.
Pseudolepton.—Cossmann, M., 2.
Pseudomelania.—Ryabinin, V.
Pseudomonotis.—Herrick, C. L.; Wittenburg, P. von.
Pseudomorphs.—Ford, W. E., 4.
Pseudopemmites.—Fraipont, C., 2.
Pseudorthoceras.—Girty, G. H.
Pseudostratification.—Louderback, G. D.
Pseudostromatism.—Haselhurst, S. R.
Pseudovirgatites.—Douvillé, R., 5.
Psygmophyllum.—Arber, E. A. N., 8; Seward, A. C., 4.
Ptelea.—Engelhardt, H.
Pteranodon.—Eaton, G. F.
Pterinæa.—Kindle, E. M., 4; Leriche, M.; Richthofen, F. von.
Pteris.—Engelhardt, H.; Laurent, L.
Pterocarya.—Engelhardt, H.
Pterochænia.—Kindle, E. M., 4; Zamyatin, A. N., 3.
Pterodactyla, Cretaceous.—Eaton, G. F.
Pterograptus.—Hadding, A.
Pteronidia.—Bolton, H.
Pteroperna.—Fucini, A., 2.
Pterophyllum.—Arber, E. A. N., 6; Lignier, O.
Pteropoda, Devonian.—Gortani, M.; Kindle, E. M., 4.
——, Oligocene.—Kört, W.
——, Silurian.—Leriche, M.; Priem, F.
Pteropora.—Bassler, R. S.
Pterygochiton.—Fucini, A., 5.
Pterygometopidella.—Wedekind, R.
Pterygotus.—Leriche, M.
Ptilodictya.—Bassler, R. S.
Ptychaspis.—Walcott, C. D., 4.
Ptychites.—Salopek, M.
Ptychodesia.—Schrammen, A.
Ptychodus.—Stefano, Gius. de, 3; Woodward, A. S., 4.
Ptycholepis.—Eastman, C. R.
Ptychoparia.—Walcott, C. D., 1 & 4.
Ptygmatis.—Papp, K. von.
Puget Sound (Alaska).—Bretz, J. H.
Pugilina.—Böse, E.
Pugnax.—Garwood, E. J.; Girty, G. H.; Gortani, M.; Vadász, M. E.
Pulaskite.—Rachkovskiĭ, I. P.
Pulchellia.—Joleaud, L.
Pulkova Observatory, St. Petersburg.—Gholitzuin, B.
Pullenia & *Pulvinulina.*—Canavari, I.; Vadász, M. E., 2.
Punjab (India).—Fox, C.
Punta Arenas (Tierra del Fuego).—Felsch, J.
Punta Hasta (Peru).—Valencia, A. R., 2.
Pupa.—Halaváts, G. von.
Purbeck formation, Kent borings.—Lamplugh, G. W., 9.
—— ——, Wiltshire.—Ord, T.
Purbeck, I. of.—Bloomfield, A. H.; Keeping, H.
Puriton (Somerset).—McMurtrie, J.
Purmallen (East Prussia).—Hess von Wichdorff, H., 3.
Purpurite.—Schaller, W. T., 2 & 5.
Purpuroidea.—Stefano, Giov. di.
Pustularia.—Martin, K.
Puy-de-Dôme (Auvergne).—Glangeaud, P., 3–6: Gonnard, F.; Laurent, L., 2.
Puzosia.—Joleaud, L.; Krenkel, E.; Pervinquière, L.
Pyatigorsk (Russia).—Chervinskiĭ, P. N.
Pycnodonta.—Douvillé, H.
Pycnomphalus.—Leriche, M.
Pycnophyllum.—Tuzson, J.
Pycnosternix.—Erasmo, G. d'.
Pygaster.—Hawkins, H. L., 1 & 6.
Pygidicrana.—Burr, M.
Pygope.—Haas, O.
Pygurus.—Krenkel, E.
Pyrenees (French).—Bertrand, L., 1, 3, & 5; Carez, L., 2; Longchambon, M.; Mengel, O., 1 & 2.
—— (Spanish).—Bertrand, L., 7; Carez, L.; Fournier, E.
Pyrgochonia.—Kolb, R.
Pyrgula.—Halaváts, G. von; Lörenthey, I. von.
Pyrina.—Hawkins, H. L.; Böse, E., 3.
Pyrite.—Allen, E. T., 1 & 2; Baumhauer, H., 3; Doss, B., 2 & 3; Dürrfeld, V., 2; Kittl, E.; Pöschi, V.; Redlich, K. A.; Schnäbele, E.; Schumacher, F.; Smyth, C. H., *fil.*; Tacconi, E.; Whitlock, H. P.; Zimányi, K., 1 & 3.
—— pseudomorphs.—Lazarevic, M., 2.
——, replacement of siliceous rock by.—Turner, H. W.
Pyrolusite.—Serra, A.
Pyromerides.—Lévy, Alb. M.
Pyrometamorphism, minerals of.—Brauns, R., 2.
Pyromorphite.—Dürrfeld, V., 2; Goldschmidt, V. M., 4.
Pyrophyllite.—Johnsen, A.

Pyroxene, New York.—Whitlock, H. P.
Pyrrhotite.—Allen, E. T., 2.
Pyrula.—Böse, E.

Quantitative Classification of igneous rocks.—Cross, W., 1 & 2; Fermor, L. L., 3.
Quartz.—Billows, E.; Cairnes, D. D., 4; Drugman, J., 1 & 2; Goldschmidt, V. M., 6; Lacroix, A. F. A., 11: Pogue, J. E.; Rinne, F., 5; Schulz, K., 2.
——, (capped).—Beck, R., 2; Schneiderhöhn, H., 2.
Quartzite.—Peach, B. N., 5; Plank, A.; Sander, B., 3; Sauerbrei, W.; Truninger, E.
——, Central Highland.—Barrow, G., 5.
Quaternary, Alaska.—Martin, G. C., 3.
——, Algeria.—Joleaud, L.
——, America (N.).—Hay, O. P.
——, Argentina.—Ameghino, F.; Rovereto, G.
——, Belgium.—Lohest, M., 7 & 9; Lorié, J.; Rutot, A. L., 3.
——, China.—Richthofen, F. von.
——, Colorado.—Ransome, F. L.
——, Delos.—Cayeux, L., 2.
——, Denmark.—Nordmann, V., 2.
——, Finland.—Sederholm, J. J., 3 & 4.
——, France.—Commont, J.; Commont, V.; Kilian, C. C. W, 7; Rivière, É.
——, Germany.—Bartling, R., 2; Freudenberg, W.; Keilhack, L. H. K., 2; Linstow, O. von, 4: Neuenhaus, H.; Stark, P.; Wuest, E.; Wunstorf, W.
——, Gloucestershire.—Richardson, L., 3.
——, Hungary.—Kormos, T., 8.
——, Illinois.—Udden, J. A.
——, Italy.—Mochi, A.; Novarese, V., 2; Rassmuss, H., 3; Stefano, Gius. de.
——, Japan.—Yabe, H., 2; Yokoyama, M.
——, Lake Superior Region.—Van Hise, C. R.
——, Leicestershire.—Horwood, A. R., 3.
——, Mississippi Basin.—Shaw, E. W.
——, New Brunswick & Quebec.—Goldthwait, J. W.
——, New South Wales.—Jensen, H. I., 2.
——, Norway.—Kaldhol, H.; Kolderup, C. F., 6; Œyen, P. A., 1, 5, 7, 8, 10, & 13.
——, Oregon.—Miller, L. H.
——, Scandinavia.—Adan de Yarza, R., 2.
——, Spitsbergen.—Högbom, B.; Nordmann, V.
——, Sweden.—Ahlmann, H. W.; Erikson, B.; Holmström, L.; Œyen, P. A., 4; Schnitt, B.
——, Sylt I.—Stolley, E., 4.
——, Wales (South).—Strahan, A., 2.
Quaternary, Wexford.—Hallissy, T.
——, definition of the term.—Gillman, F., 2; Irving, A., 5; Lemoine, P. 3.
——, divisions of.—Geer, G. de, 3; Munthe, H.
——. *See also* Pleistocene, *&c.*
Quebec (Canada).—Goldthwait, J. W.; Harvie, R.; Hussakof, L., 2; Keele, J., 2; O'Neill, J. J.; Ries, H.; Warren, C. H.; Wilson, M. E.
Queen Charlotte Is. (Canada).—Porter, J. P.
Queensland.—Cameron, W. E., 1–6; David, T. W. E.; Hart, G. S.; Marks, E. O., 1–5; Pearce, W. C. W.; Wearne, R. A.
Quenast (Brabant).—Malaise, C. H. G. L., 4.
Quercus.—Berry, E. W., 5; Engelhardt, H.; Krishtofovich, A. N., 4.
Quicksilver, United States.—McCaskey, H. D.
Quina, La (Charente).—Anthony, R.; Franchet, L.; Martin, H.
Quincy Valley (Washington).—Landes, H.

Ra Period, Norway.—Œyen, P. A., 11.
Radio-active minerals.—Rossi, P.
——, niobotantalotitanates. — Lacroix, A. F. A., 9.
——, rocks, Italy.—Nasini, R.
——, springs.—Eve, A. S.; Fresenius, H.; Horusitzky, H.; Laborde, A.; Lutebacher, J.; Massol, G.; Nasini, R., 3; Szilard, B.
Radioactivity, age of the earth, and.—Holmes, A.; Pruvost, P., 2.
——, geology and.—Czek, W.; Joly, J., 1–3; Suess, F. E., 3.
——, Leinster Granite.—Fletcher, A. L.
——, natural gas and. — Laborde, A.; Moureu, C.
——, pleochroic haloes and. — Hövermann, G.
——, water-divining and.—Thompson, B.
——, zircon &.—Dölter, C.
Radiolarian rocks.—Hill, W., 2; Reid, C., 3; Scrivenor, J. B., 3.
Radiolarite.—Meyer, H. L. F.
Radiolites. — Böse, E., 2; Leriche, M., 3; Parona, C. F., 2–4.
Radium, Arkansas.—Purdue, A. H., 2.
——, Ontario.—Eve, A. S., 2.
——, content of Secondary rocks. — Fletcher, A. L., 2.
——, earth-history and.—Bulman, G. W.
——, effect on colours of minerals. — Brauns, R., 3.
——, origin of.—Soddy, F.
——, in pitchblende.—Krusch, P.
Radix.—Kormos, T., 6.
Radstädter Tauern (Tyrol). — Heritsch, F., 10; Kober, L., 6; Termier, P., 3.
Ræmerella.—Girty, G. H.
Raeta.—Guppy, R. J. L., 2.

Ragunda district (Jemtland).—Ahlmann, H. W.
Rain-pittings, Palæozoic.—Delgado, J. F. N.
Rainy Lake (Ontario).—Lawson, A. C. 2.
Raised beaches, Argyll.—Peach, B. N., 5.
—— ——, County Down.—Home, H.
—— ——, Cornwall.—Flett, J. S., 4.
—— ——, New Zealand.—Aston, B. C.
—— ——, Norway.—Rekstad, J. 2.
—— ——, S. Wales.—Strahan, A., 2.
Rambler Mine (Wyoming).—Rogers, A. F., 2 & 6.
Râmnicu (Rumania).—Ionescu, N.
Rána stone.—Clarke, H. E.
Rancho La Brea (Cal.).—Merriam, J. C.; Miller, L. H., 2.
Rand, (S. Afr.).—Mellor, E. T., 4.
Rand Banket.—Young, R. B.
Rand Goldfield, New.—*See* Witwatersrand.
Rand System, Transvaal.—Molengraaff, G. A. F.
Ranella.—Weaver, C. E., 2.
Ransart (Hainault).—Cambier, R.
Raphaelia.—Seward, A. C., 2.
Raphidonema.—Welter, O. A.
Raphistoma.—Richthofen, F. von.; Cerulli-Irelli, S.
Rare earths.—Urbain, G.
—— metals, uses of.—Stephens, F. J.
Raspite.—Wittich, E., 5.
Rathite.—Lewis, W. J.
Ratofkite.—Sergeev, A. S.
Rattlestones, Rhenish Prussia.—Brockmeier, H.
Raumeria.—Schuster, J., 2.
Ravenstonedale (Westmorland).—Garwood, E. J.
Razumovsko (Moscow Gov.).—Vinogradov, A.
Realgar.—Löw, M.
Reculvers (Kent).—Whitaker, W., 3.
Red clays.—Cole, G. A. J., 4.
—— ——, oceanic.—Philippi, E.
Red Crag.—Bonney, T. G., 3; Lankester, Sir E. Ray; Stopes, M. C. C., 1 & 2; Woodward, B. B.
Red earth.—Glinka, K. D.; Tućan, F., 2; Vageler, P.
Red-rain dust.—Steel, T., 2.
Redesdale (Victoria).—Whitelaw, H. S., 2.
Redeyef (Tunis).—Roux, H.
Reedia.—Wedekind, R.
Reflectometer.—Hutchinson, A., 2.
Refraction, double.—Bolduirev, A. K.; Rinne, F. 3.
——, index of.—Panebianco, R., 2; Schwietring, F.
Rega Valley (Pomerania).—Hess von Wichdorff, H., 7.
Regadrella.—Schrammen, A.
Regina.—Herrmann, F. 3.
Reichenbach (Black Forest).—Dürrfeld, V., 3–5.
Reigate (Surrey).—Crosfield, M. C.
Reigersdorf (Moravia).—Kretschmer, F.
Reigoldswil (Basel).—Delhaes, W., 2.
Reineckeia.—Lemoine, P.; Papp, K. von.
Rennes (Ille-et-Vilaine).—Kerforne, F., 4.
Reophax.—Noth, R.
Replacement, nature of.—Lindgren, W., 2.
—— ore-bodies.—Knox, H. H.; Stevens, B.
—— of siliceous rock by pyrite.—Turner, H. W.
Reptilia, Carboniferous.—Williston, S. W., 2.
——, Cretaceous.—Bogholubov, N. N., 4 & 5; Broom, R., 11; Brown, B.; Dacqué, E., 2; Drevermann, F. 2; Eaton, G. F.; Gilmore, C. W., 2; Knowlton, F. H.; Lambe, L. M.; Lull, R. S., 1–3; Moodie, R. L., 3; Sternfeld, R.
——, Jurassic.—Bogholubov, N. N., 1 & 2; Broom, R., 12; Drevermann, F., 3; Holland, W. J.; Mehl, M. G., 2; Ryabinin, A. N., 4; Sauvage, H. E., 1 & 2.
——, Karroo.—Anderson, W.; Broom, R., 2.
——, Palæozoic.—Case, E. C., 4.
——, Permian.—Branson, E. B., 2; Broom, R., 1, 4, 6, & 7; Case, E. C., 1–3 & 5; Huene, F. von, 5; Ryabinin, A. N.; Watson, D. M. S.
——, Quaternary.—Campana, D. Del.
——, Tertiary.—Dacqué, E., 2; Fucini, A., 4; Kinkelin, F.; Misuri, A.; Rovereto, C.; Thevenin, A.; Wegner, T.
——, Triassic.—Broom, R., 6; Huene, F. von, 1–2 & 5; Lull, R. S., 4; Watson, D. M. S.; Wiman, C.
——, Wealden.—Hooley, R. W., 2.
——, fossil marine.—Merriam, J. C., 2.
——, stomach-stones of.—Moodie, R. L., 8.
——, structure of skulls of.—Broom, R., 3 & 13.
——. *See also* Dinosauria, *&c.*
Resin, New Zealand fossil.—Penrose, R. A. F.
Retepora.—Grosch, P., 2.
Reticularia.—Kindle, E. M., 4.
Retzia.—Hermann, F.; Priem, F.; Richthofen, F. von.
Réunion I. (Indian Ocean.)—Lacroix, A. F. A., 3, 4, 7, 12, 23, 24, & 30.
Rentières (Puy-de-Dôme).—Glangeaud, P., 3.
Reventado Volcano (Costa Rica).—Tristan, J. F., 5.
Rhabdammina.—Noth, R.
Rhabdocarpus.—Arber, E. A. N., 3; Vernon, R. D.
Rhabdoporella.—Kolderup, C. F., 6.
Rhabdotocaulon.—Fliche, P.

Rhacophyllites.—Fucini, A., 3; Papp, K. von.
Rhadinichthys.—Traquair, R. H., 1 & 2.
Rhætic, Bristol district. — Reynolds, S. H.
——, Indo-China.—Mansuy, H.
——, Leicestershire.—Horwood, A. R., 2 & 5.
——, Lombardy.—Rassmuss, H., 2.
——, Luxemburg.—Jérome, A., 3.
——, Patagonia.—Delhaes, W.
——, Swiss Jura.—Buxtorf, A.; Grosch, P.
——, Tyrol.—Kerner, F. von, 3.
——, Warwickshire. — Matley, C. A.; Richardson, L.
Rhagamys.—Bate, D. M. A.
Rhagasostoma.—Brydone, R. M.
Rhamnus.—Engelhardt, H.
Rhätikon.—Mylius, H., 3; Seidlitz, W. von, 1–2 & 4.
Rhazella.—Kolb, R.
Rheinfelden (Aargau).—Disler, K.
Rhénée I. (Cyclades).—Cayeux, L., 2.
Rhenish Prussia.—Brauns, R., 1–2 & 5; Brockmeier, H., 1 & 2; Danckers, R.; Dietrich, B.; Dürrfeld, V.; Fliegel, G.; Grupe, O., 4; Hopmann, P. M.; Kaiser, E.; Keilhack, L. H. K., 3; Liesegang, R. E., 5; Meunier, F.; Quaas, A.: Van Werveke, L., 1 & 3; Vierschilling, A.; Welter, O. A.; Wittich, E., 7; Wunstorf, W.
Rhindaston Group. — Thomas, Herbert H.
Rhine R.—Klähn, G.; Weingärtner, R. M.
—— district, lignite.—Holzapfel, E.
—— ——, Quaternary. — Bärtling, R., 2; Freudenberg, W.; Menzel, H., 4.
—— ——, Tertiary & Drift. — Krause, P. G., 2.
Rhine Valley.—Salomon, W., 3; Spitz, A., 3; Wunstorf, W., 2.
Rhinesuchus.—Broom, R., 7.
Rhinidictya.—Bassler, R. S.
Rhinoceros.—Abel, O., 7; Kadić, O.; Kinkelin, F.; Kormos, T., 17; Studer, T., 3; Wurm, A.
Rhinocerotidæ, European Tertiary. — Abel, O.
Rhipidomella.—Kindle, E. M., 4.
Rhizangia.—Oppenheim, P.
Rhizinia.—Kolb, R.
Rhizomopteris.—Seward, A. C., 2.
Rhizopoda, Carboniferous. — McLean, R. C.
Rhizopoterion.—Schrammen, A.
Rhizotetraclis.—Kolb, R.
Rhode I. (U.S.A.).—Lahee, F. H., 2.
Rhodea.—Broussier, F.
Rhodesia (S. Afr.).—Mennell, F. P., 1 & 2; Molyneux, A. J. C.; White, F.; Zealley, A. E. V.
Rhodocrinus.—Wright, J., *fil.*
Rhodocroisite.—Manasse, E., 2.
Rhodozite.—Lacroix, A. F. A., 17.
Rhombopora.—Bassler, R. S.
Rhombotrypa.—Cumings, E. R.
Rhombus.—Stefano, Gius. de, 3.
Rhön Mts. (Germany). — Bücking, H., 1 & 2; Dietrich, B., 3; Philipp, H.; Präsent, H.
Rhône (France).—Assada, I.
—— glaciers.—Æberhardt, B.
—— R.—Lugeon, M., 2; Martel, E. A.
Rhône Valley.—Horwitz, L.; Jeannet, A.
Rhopala & *Rhus*.—Engelhardt, H.
Rhyncholites.—Till, A., 2.
Rhynchonella.—Garwood, E. J.; Gortani, M.; Haas, O.; Herrmann, F., 3; Jacob, C., 2; Richthofen, F. von; Stefano, Giov. di; Vadász, M. E.; Vinassa de Regny, P.
Rhynchopora.—Nechaev, A. V.; Vadász, M. E.
Rhynchosauroides.—Maidwell, F. T., 3.
Rhynie (Aberdeenshire).—Mackie, W.
Rhyolite, Ascension I.—Reinisch, R.
——, Commander I. — Zygmuntowska, W.
——, Japan.—Kôzu, S.
——, Merionethshire.—Lake, P.
——, New South Wales. — Browne, W. R.
—— -tuff, Hungary.—Pávai-Vajna, F. von, 2.
Riazan (Russia).—Prigorovskiĭ, M.
'Ribbon-striping' in ice.—Grinlington, J. L.
Ribeiro R. (Brazil).—Krone, R.
Richmond (Va.).—Darton, N. H., 2.
Riebeckite.—Smeeth, W. F., 2.
—— -granite.—Cantuniari, S.
Ries (Würtemberg).—Jooss, C. H., 2 & 3; Löffler, R.
Riesengebirge (Silesia).—Rimann, E.; Staff, H. von.
Rieser Ferner (Tyrol). — Klebelsberg, R. von, 4.
Rift Valley (British East Africa).—Collie, G. L.
Rimella.—Weaver, C. E., 2.
Ringicardium.—Cossmann, M., 2.
Ringicula.—Cerulli-Irelli, S.
'Ringing rocks,' Pennsylvania. — Wherry, E. T.
Rio Grande do Sul (Brazil).—Walther, Karl, 2.
Rio Negro (Argentina).—Rovereto, G., 3.
Ripple-marks.—Brown, A. P.; Toli, A. de.
Risgovite.—Löffler, R.
Riskulica (Hungary).—Rozlozsnik, P.
Riucorp (Spain).—Almeira, J.
Riudoms (Spain).—Bentabol, H., 2.
River-action, Lincolnshire. — Burton, F. M.
—— -changes, Töss Valley.—Hug, J.
—— -gravels, New South Wales.—Jensen, H. I.
—— ——, Nottinghamshire. — Lamplugh, G. W., 8.

River-system, evolution of Belgian.—Van de Wiele, C.
—— ——, Luxemburg.—Jérome, A., 7.
—— -terraces. — Bromehead, C. N.; Dietrich, B., 2.
—— -valleys, Germany (N.)—Keilhack, L. H. K.
—— ——, Ireland.—Cole, G. A. J., 2.
—— ——, submerged.—Hull, E.
Rivers.—Clarke, F. W.; Rudzki, M. P.
——, Belgian Congo.—Passau, G., 3.
——, Silesia.—Staff, H. von.
——, Sweden.—Geer, S. de.
——, Switzerland.—Schardt, H.
——, transport by.—Steel, T.
Rives (Isère).—Blanchard, R.
Rivularites.—Fliche, P.
Road-metal, Oklahoma.—Gould, C. N., 2.
Roanne (Loire).—Depéret, C., 3.
ROBERTS, R. D., *Obit.—See* Anon, 14; *&* Watts, W. W.
Roberts Victor Mine (O.F.S.)—Corstorphine, G. S.
Robinia.—Engelhardt, H.
Rochdale (Lancs.).—Platt, S. S.
Roche Miette (Alberta). — Dowling, D. B., 3.
Rochefortia.—Cossmann, M., 2.
Rochelle, La (Charente Inf.).—Welsch, J., 4.
Rock-analyses, space-projection of. — Becke, F. J. K., 2.
—— ——, tables for the calculation of.—Harker, A.
—— -genesis, basic dykes, &c.—Mennell, F. P.
Rock-salt, coloration in.—Dölter, C., 3.
—— ——, crystals of.—Rinne, F., 2.
'Rock and Spindle' volcanic vent, St. Andrews (Fife).—Balsillie, D.
Rocks, decomposition of.—Clarke, F. W.
——, deformation of.—Sander, B., 2 & 5; Andrée, K., 6; Lachmann, R., 2–4.
——, differential movement of.—Sander, B., 2.
——, elasticity of.—Hess von Wichdorff, H., 5; Oddone, E.
——, flexibility of. — Gillman, F.; Schmidt, W.
——, gas in.—Baume, G.; Pamfil, G. P.
——, movements in.—Lamplugh, G. W., 3.
——, origin of foliated crystalline.—Termier, P., 5; Trueman, J. D.
——, plasticity of.—Lachmann, R., 4.
——, radioactivity of.—Joly, J., 3.
——, radium content of Secondary.—Fletcher, A. L., 2.
——, specific gravity of plutonic. — Becke, F. J. K.
——, strength of.—King, L. V.
Rockwood Park (New Brunswick).—Matthew, G. F.
Rocky Lead (Victoria). — Ferguson, W. H., 2.
Rodange (Luxemburg). — Dondelinger, V. Jérome, A., 5.
Rodentia.—Bate, D. M. A.; Kellogg, L.; Matthew, W. D. 4.
Rodez (Aveyron).—Bergeron, J., 2.
Rodingite.—Bell, J. M., 2.
RŒDER, C., *Obit—See* Judd, J. W., 3.
Rome (Italy).—Cerulli-Irelli, S.; Parona, C. F., 3; Meli, R., 2; Sabatini, V., 2.
Romingeria.—Grosch, P., 2.
Roncobello (Lombardy).—Tommasi, A., 1 & 2.
Rontó (Hungary).—Kormos, T., 18.
Ronzotherium.—Abel, O.
Roos Senekal (Transvaal).—Hall, A. L., 2.
Roosevelt Dam (Arizona). — Martel, E. A., 2.
Rosamond Series.—Baker, C. L.
Roscobie (Fife).—Bather, F. A., 6.
Rossignol (Luxemburg).—Jérome, A., 3.
Ross-shire.—Peach, B. N., 4.
Rossweidli (Switzerland). — Gerber, E., 2.
Rostellites.—Herrick, C. L., 2; Johnson, D. W.
Rotalia.—Vadász, M. E., 2.
Röthi Dolomite.—Paulcke, W.
Rothliegend Conglomerate, formation of.—Loziński, W. von, 2.
Rougemont, Mt. (Quebec). — O'Neill, J. J.
Roussas, Gebel (Egypt).—Fourtau, R.
Royal Society.—Geikie, Sir Archibald.
Rubies.—Moir, J.
Rudistæ.—Parona, C. F., 2 & 4.
Rügen I.—Hintze, V.; Jäkel, O. M. J.; Schulte, L.
Ruffordia.—Berry, E. W.
Rumania.—Bergeron, J., 3; Butureanu, V. C.; Cadere, D. M.; Costăchescu, N.; Ionescu, N.; Irescu, M. I.; Macovei, G.; Mrazek, L., 2; Murgoci, G., 1 & 2; Pană, A.; Pascu, R.; Popescu-Voitești, I., 1–3; Preiswerk, H.; Protopopescu-Pake, E. I., 2; Rotman, D.; Simionescu, I., 2; Stefănescu, G.; Teisseyre, W.
Rummelsberg (Silesia).—Behr, J.
Runcorn Hill (Cheshire). — Maidwell, F. T., 3.
Runk Valley (Hungary).—Kadić, O., 4.
Russia.—Andrusov, N. I., 4; Arkhanghelski, A. D.; Boghachev, V. V.; Bogholubov, N. N., 5; Charnotzkiĭ, Y. A.; Egunov, I. A.; Faas, A. V.; Fersmann, A. E.; Khimenkov, V. G.; Kidston, R., 3; Krishtafovich, N. I., 2; Krotov, P.; Luchitzkiĭ, V.; Nechaev, A. V.; Nenadkevich, K. A.; Nikolaevskii, F. A.; Oghiluvi, A. N.; Perret, L.; RUSSIA, 1 & 2; Samoïlov, Y. V.; Sergĕev, A. S.; Sokolov, D. V.; Tetiaev, M., 2; Vasilievskiĭ, M. M., 1 & 2; Zamyatin, A. N.; *see also* Podolia, *&c.*
Russky I.—Wittenburg, P. von, 2.
Ruszkabánya (Hungary).—Schafarzik, F., 2.

Rutile.—Quensel, P. D., 3; Schaller, W. T., 10 & 21; Warren, C. H.; Watson, T. L., 3.
'Rutmark,' Lapland.—Bergström, E.

S. Acheul (Somme).—Commont, V.
S. Albans (Herts.).—Bullen, G. E.
S. Andreasberg (Harz).—Bruhns, W.
S. Andrews (Fife).—Balsillie, D.
S. Anthony Mine (Ontario).—Moore, E. S., 4.
S. Antioco (Sardinia).—Johnsen, A., 3.
S. Arnaud Mines (Victoria).—Dunn, E. J., 5.
S. Barbara Co. (Cal.).—Louderback, G. D.
S. Barthélemy Massif (Ariège).—Canal, J.
S. Bartholomeu (Alcobaça). — Souza-Brandão, V.
S. Bernard (Savoy).—Kilian, C. C. W., 8.
S. Carlos (Argentina).—Carlés, E. de, 2.
S. Cécile (Luxemburg). — Fourmarier, P., 6.
S. Claude (Jura). — Delebecque, A.; Riche, A., 1 & 2.
S. Domingos (Portugal).—Delgado, J. F. M.
S. Eulalia (Mexico).—Seebach, M
S. Gerand-le-Puy (Allier).—Vasseur, G.
S. Giovanni (Sardinia).—Cesàro, G.
S. Gothard Tunnel, radioactivity of rocks of.—Joly, J., 2.
S. Helena.—Reinisch, R.
S. Helen's mining district (Washington).—Zapffe, C., 2.
S. Helier (Jersey).—Sinel, J.
S. Jean de-Maurienne (Savoy).—Pussenot, C., 2.
S. Joachim Valley (Bohemia). — Jaffé, R.; *see also* Joachimstal.
S. Juan (Argentina).—Stappenbeck, R.; Stieglitz, O.
S. Juan (Colorado).—Atwood, W. W., 3 & 4; Prosser, W. C.
S. Lawrence Co. (N.Y.).—Smyth, C. H., *fil.*
S. Lawrence, Gulf of.—Clarke, J. M., 2.
S. Louis, East (Ill.).—Fenneman, N. M.
S. Lucas Bad (Hungary).—Szilard, B.
S. Luis Potosí (Mexico).—Böse, E., 2; Ford, W. E., 4.
S. Luis Valley (Colo.).—Siebenthal, C. E.
S. Michaelisdonn (Germany).—Gagel, C., 4; Menzel, H.
S. Miguel (Azores).—Reinisch, R.
S. Omer (Pas-de-Calais).—Gosselet, J. A. A., 1 & 9.
S. Paolo (Sicily).—Franco, S. di.
S. Pietro I. (Sardinia).—Johnsen, A., 3.
S. Rafael Swell (Utah).—Lupton, C. T.
S. Rita (New Mexico).—Paige, S., 2.
S. Sallerup (Scania).—Schnittger, B.
S. Salvatore (Ticino).—Salomon, W., 2 & 4.
S. Sauveur (French Pyrenees). — Bertrand, L., 5.
S. Symphorien (Hainault).—Cornet, J.
S. Thomas I.—Böse, W.
S. Urbain (Quebec).—Warren, C. H.
S. Vincent (Cape Verd Is.).—Reinisch, R.
S. Vincent (Seine Inférieure). — Nègre, G., 2.
S. Walburge (Liége).—Lohest, M., 8.
Saale R. (Germany).—Wüst, E.
Saar Basin (Germany).—Kessler, P.
Saar Coalfield (Germany).—Frech, F.
Saarburg (Germany). — Van Werveke, L., 3.
Sabal.—Engelhardt, H.; Krishtofovich, A. N., 4.
Sabalites.—Azéma, L.; Fritel, P. H.
Sables-d'Olonne (Vendée).—Welsch, J., 3.
Saccammina.—Vadász, M. E.
Sagenopteris.—Thomas, H. Hamshaw.
Sagittularia.—Welter, O. A.
Saintes (Charente Inférieure).—Pervinquière, L., 2.
Salenia.—Böse, E., 3; Jackson, R. T.
Salenocidaris.—Jackson, R. T.
Salic silicates.—Washington, H. S.
Salisbury (Wilts).—Withers, T. H.
Salix.—Engelhardt, H.; Krishtofovich, A. N., 4.
Salmian metamorphic rocks, Belgium.—Anten, J., 3.
Salmon River District (B.C.).—McConnell, R. G.
Salt-crystals, growth of.—Fastert, C.
Salt-deposits, deformation of.—Andrée, K., 6; Arrhenius, S.; Lachmann, R., 1–4.
—— ——, minerals of.—Görgey, R., 1 & 2.
—— ——, origin of.—Hahn, F. F., 3; Meyer, H. L. F., 4.
—— ——, Galicia.—Windakiewicz, E.
—— ——, Hanover.—Stille, H., 1 & 2.
—— ——, Hesse.—Beck, K.
—— ——, Rumania.—Merutz, V.
—— ——, Stassfurt.—Riedel, O.
—— ——, Wyoming.—Hayes, C. W., 2.
Salt-plains, E. & W. Prussia.—Preuss, H.
Salt Range (Punjab).—Fox, C.
Salta (Argentina).—Carlés, E. de, 3.
Saltvik (Åland).—Tanner, V.
Salzburg (Austria).—Huebl, A. F. von; Waagen, L., 3.
Samara (Russia).—Doss, B., 1–3; Zamyatin, A. N., 2.
Samiresite.—Lacroix, A. F. A., 9.
Samoa Is. (Pacific). — Anderson, T.; Schmittmann, J.
Samobor (Croatia).—Poljak, J.; Reizer, N.; Salopek, M.
Samos. — Butz, J.; Kormos, T., 14; Studer, T.
Samsonite.—Bruhns, W.: Kolbeck, F.
Sand, Egyptian desert.—Walther, J. K., 5.
——, settlement of.—Owens, J. S.

Sand-deposits.—Ivchenko, A. T., 2.
Sandfluhgruppe (Berne).—Gerber, E.
Sands, Italian Pliocene.—Principi, P., 2.
——, shore-.—Chelussi, I., 2.
Sandstone, accumulation of oil & gas in.—Johnson, R. H.
——, metamorphosed.—Truninger, E.
——, Nevada.—Smith, W. S. T.
——, Tertiary.—Plank, A.
—— 'tops.'—Andrée, K., 4.
——, cylindrical cavities in.—Beadnell, H. J. L.
Sandwich Is. (Pacific).—Brun, A.
Sangimignano (Siena).—Andreucci, A.
Sanidine.—Hibsch, J. E., 2.
Sanidinite.—Brauns, R., 5.
Sanitation, geology and. — Woodward, H. B.
Santa Cruz (Patagonia).—True, F. W.
Santalum.—Engelhardt, H.
Santander (Spain). — Bertrand, L., 8; Mengaud, L.
Santiago del Estero (Argentina).—Carlés, E. de.
Santon (I. of Man).—White, F. W.
Saône-et-Loire.—Rouyer, C., 2.
Sapindopsis.—Berry, E. W.
Sapindus.—Engelhardt, H.
Saponite.—Winchell, N. H., 3.
Sapotacites.—Engelhardt, H., 1 & 2.
Sapphirine. — Lacroix, A. F. A., 14; Warren, C. H.
Sapropel.—Kaunhowen, F.; Potonié, H., 2.
Sapropelite.—Potonié, H., 1 & 5.
Saratoga Springs (N.Y.).—Kemp, J. F., 2.
Saratov (Russia).—Arkhanghelski, A. D.; Rosanov, A. N.; Sintzov, I. T.
Sarawak (Borneo).—Geikie, J. S.
Sarchí (Costa Rica).—Sapper, K. T., 2.
Sardinia.—Cesàro, G., 1–3 & 5; Chelussi, I., 3; Fucini, A., 2; Issel, A., 3; Johnsen, A., 3; Lovisato, D., 1–4; Manasse, E., 3; Osimo, G.; Pilotti, C., 1–4; Schubert, R. J., 4; Serra, A.; Taricco, M.; Testa, L.
Sarek Mts. (Norrbotten).—Hamberg, A.; Seidlitz, W. von, 3.
Sargasso Sea (Atlantic).—Stevenson, J. J.
Sark (Channel Is.).—Bonney, T. G., 5.
Sarmatian, Moldavia.—Sevastos, R.
——, volcanic ash in.—Athanasiu, S., 3.
Sarophora.—Schrammen, A.
Sáros (Hungary).—Roth von Telegd, L., 3.
Sárrét (Hungary).—Kormos, T., 8.
Sarsens, Buckinghamshire.—Sherlock, R. L.
——, Hertfordshire. — Irving, A., 2; Salter, A. E.
Sarthe (France).—Lignier, O.
Saskatchewan (Canada).—Dowling, D. B., 4; Porter, J. B.
Sassafras.—Berry, E. W.; Engelhardt, H.
Sassina Valley (Lombardy).—Cermenati, M., 2.
Sassnitz (Rügen).—Schulte, L.
Sauropterygia.—Bogholubov, N. N., 5.
Sauvagesia.—Parona, C. F., 4; Toucas, A.
Savaii (Samoa). — Anderson, T.; Schmittmann, J.
Savognin (Grisons).—Meyer, H. L. F.
Savoy (France). — Collet, L. W.; Hollande, D.; Kilian, C. C. W., 8; Révil, J., 1 & 2; Vallot, J.
Sawyer's I. (Maine).—Loomis, F. B.
Saxony.—Beck, R., 1 & 2; Bergt, W.; Beyer, O.; Glöckner, F.; Hausse, R.; Hundt, R.; Jacob, K. H.; Lachmann, R.; Linstow, O. von; Räfler, F.; Riedel, O.; Schönfeld, G.
Saynoceras.—Jolenud, L.
Scacchia.—Cossmann, M., 2.
Scala.—Boury, E. de.
Scalaria.—Canavari, I.
Scaldicetus.—Chapman, F., 13.
Scalpellum.—Nielson, K. B.; Withers, T. H., 1 & 2.
Scandinavia.—Adan de Yarza, R., 2; Harboe, E. G.; Sernander, R., 3.
Scandinavian Highlands. — Björlykke, K. O., 2.
Scandium.—Urbain, G.
Scania. — Holmström, L.; Moberg, J. C., 2; Schnittger, B.
Scapanorhynchus.—Woodward, A. S., 3.
Scaphander.—Cerulli-Irelli, S.
Scaphiocrinus.—Wright, J., *fil.*
Scaphites.—Pervinquière, L.
Scaphites binodosus, stratigraphic value of.—Wegner, T., 2.
Scaphopoda, Tertiary.—Cerulli-Irelli, S.; Toula, F., 2.
Scapolite-rock.—Kretschmer, F.
Scarborough Beds.—Richardson, L., 5.
Scarborough Limestone. — Buckman, S. S., 2.
Scaumenac Bay (Quebec). — Hussakof, L., 2.
Scaumenacia.—Hussakof, L., 2.
Scenellopora & *Sceptropora.* — Bassler, R. S.
Scenidium.—Gortani, M.
Schachen Valley (Uri).—Staub, W., 1 & 2.
Schafberg (U. Austria).—Spengler, E.
Schafhäutlia.—Stefano, Giov. di.
Schams (Grisons).—Steinmann, J. H. C. G. G., 5.
Schauinsland (Baden). — Schumacher, F.
Scheelite.—McCallum, A. L.
Scheibbs (Lr. Austria).—Kowatsch, A.
Schelingen (Baden).—Söllner, J.
Schellwienia.—Schellwien, E.
Schenectady (N.Y.).—Stoller, J. H.
SCHENK, A., *Obit.*—*See* Forel, F. A.
Schiefergebirge (Germany).—Herrmann, F., 1 & 2.; Kaiser, E.; Kranz, W., 2; Van Werveke, L., 5.

'Schistes lustrés,' Franco-Italian Alps.—Kilian, C. C. W., 10.
Schists, Alaska.—Loughlin, G. F.
——, Anglesey.—Greenly, E.
——, Argyllshire.—Peach, B. N., 5.
——, Austria (Lr.)—Reinhold, F.
——, Basilicate.—Lorenzo, G. de.
——, Caucasus.—Schafarzik, F.
——, Lizard.—Flett, J. S., 4.
——, Ross-shire.—Peach, B. N., 4.
——, Scotland.—Barrow, G., 5.
——, Uganda.—*See* GREAT BRITAIN, Colonial Office, Uganda, 1909.
——, crystalline.—Vialay, A.
——, origin of.—Trueman, J. D.
Schizæopsis.—Berry, E. W.
Schizaster.—Cotter, G. de P.
Schizodus.—Richthofen, F. von.
Schizolepis.—Thomas, H. Hamshaw.
Schizoneura.—Fliche, P.
Schizophoria.—Gortani, M.; Vadász, M. E.
Schizoporella.—Canu, F.
Schleswig-Holstein (Germany).—Gagel, C., 2.; Woldstedt, P.
Schlœnbachia.—Böse, E., 3; Pervinquière, L.; Schlagintweit, O.
SCHMIDT, F. B., *Obit.*—Tolmachev, I. P.
Schneeberg (Tyrol).—Granigg, B.; Lazarevic, M.
Schollengebirge (Berne).—Gerber, E.
Schönberg (Moravia).—Kretschmer, F.
Schreiberhau (Silesia).—Staff, H. von.
Schuchertella.—Kindle, E. M., 4.
Schuetzia.—Schuster, J., 3.
Schulau (Germany).—Wolff, W., 2.
Schwagerina.—Schellwien, E.
Schwarzenbeck (Lauenburg).—Franke, A.
Schwenningen (Würtemberg).—Haag, F.
SCHWIPPEL, K., *Obit.*—Suess, F. E.
Sciæna.—Stefano, Gius. de, 3.
Sciænidarum.—Lörenthey, I. von.
Scleroplegma.—Schrammen, A.
Scleropteris.—Berry, E. W.
Sconsia.—Böse, E.
Scorodite.—Dürrfeld, V., 2.
Scotland, heavy minerals in Carboniferous.—Bosworth, T. O., 3.
——, Highlands of.—Bailey, E. B., 3; Barrow, G., 4; Bates, G. F.
——, submerged forests in Western Is.—Wright, W. B., 4.
——, volcanic rocks of.—Flett, J. S., 3.
Scott County (Kansas).—Merrill, G. P., 2.
Scurria.—Johnson, D. W.
Scutellidæ.—Stefanini, G., 1 & 3.
Scyelite.—Peach, B. N., 4.
Scyllium.—Woodward, A. S., 3.
Scymnognathus.—Broom, R., 6.
Scymnosuchus.—Watson, D. M. S.
Sea, encroachment of.—Bonney, T. G., 4.
——, erosion.—Parvu, —.
Sea, origin of life in the deep.—Walther, J. K., 3.
—— -level at Bornholm, changes in.—Krantz, W.; Milthers, V.
—— ——, Croatia & Dalmatia.—Gavazzi, A.
—— -margin, ancient, I. of Wight.—Hull, E., 2.
—— -sands, Mediterranean.—Salmojraghi, F.
—— -strands, N. Norway.—Vogt, J. H. L.
—— -water, Adriatic.—Gegenbauer, V.
——. *See also* Soundings.
Seas, glaciation of.—Drygalski, E. von, 2.
Secca Valley (Lombardy).—Tommasi, A.
Secondary enrichment.—Welsh, T. W. B.
Secondary rocks, radium content of.—Fletcher, A. L., 2.
Secular elevation, Norway.—Rekstad, J., 2; Vogt, J. H. L.
Sedimentation.—Andrée, K., 3.
——, experiments in.—Owens, J. S.
Sediments, Gulf of Naples.—Andrée, K.
—— off Tauben bank (Bay of Naples).—Walther, J. K.
Seeds, Carboniferous plants.—Carpentier, A., 4.
Sefström Glacier (Spitsbergen).—Lamplugh, G. W.
Segesvár (Transylvania).—Wachner, H., 2.
Segmentina.—Lörenthey, I. von.
Segregation, mineral.—Collins, J. H., 3.
Seibal (Brazil).—Walther, Karl, 2.
Seiches.—Darwin, G. H.; Endroes, A.; Halbfass, W.
Seine (France).—Rivière, É.
Seine Inférieure (France).—Cohen, A.; Dubus, A.; Nègre, G., 2.
Seine-et-Marne (France).—Baudouin, M., 2; Hue, E.
Seine-et-Oise (France).—Courty, G.
Seine R., Bay of.—Thoulet, J.
Seismograph pillar, Colombo.—Bamford, A. J.
Seismographs.—Conrad, V., 2; Douxami, H., 2.
——, measurement of railway-carriage vibrations by.—Omori, F.
Sekukuniland (Transvaal).—Hall, A. L.
Selaginella.—Berry, E. W.
Selbornian.—Woodward, H. B., 4.
Selective absorption.—Schwarz, E. H. L., 5.
Selenaria.—Chapman, F., 5.
Selenite.—Silberrad, C. A.
Selenosteus.—Hussakof, L.
Seligmannite.—Solly, R. H.
Selsey Bill (Sussex).—Heron-Allen, E.
Semele.—Böse, E.; Weaver, C. E., 2.
Semicassis.—Cerulli-Irelli, S., 2.
Semierycina.—Cossmann, M., 2.
Semieschara.—Brydone, R. M.
Seminula.—Garwood, E. J

Semionotus.—Eastman, C. R.
Semipalatinsk (Siberia).—Gholitzuin, B.
Seneka Lake (New York).—Spencer, J. W. W., 2.
Senilia.—Freire de Andrade, A. A.
Senne Valley (Belgium). — Malaise, C. H. G. L., 4.
Senonian, Austria.—Klinghardt, F.
——, France. — Canal, J., 2; Filliozat, M., 3; Gosselet, J. A. A.
——, Leszczyny.—Rychlicki, J.
——, Mexico.—Böse, E., 2.
——, Russia.—Krasovskii, A.
——, Westphalia.—Wegner, T., 2.
——. *See also* Chalk, *&c.*
Sequanian.—Delhaes, W., 2.
Sequoia.—Berry, E. W., 1 & 4; Engelhardt, H.; Krishofovich, A. N., 4.
Sergievsk (Samara). — Zamyatin, A. N., 2.
Sericite.—Hutchinson, A., 4.
Serpentine.—Butz, J.; Flett, J. S., 4.
——, gas in.—Pamfil, G. P.
Serpont massif (Ardennes).—Malaise, C. H. G. L., 2.
Serpula.—Oppenheim, P.
Serpulopsis.—Girty, G. H.
Servia. — Katzer, F.; Lazarevic, M., 2; Wendeborn, B. A.
Sesamodon.—Broom, R., 3.
Sesvenna Group (Tyrol).—Hammer, W., 2.
Sette Comuni (Vicenza).—Stefani, C. de, 5.
Settle (Yorks).—Kendall, P. F.
Setubal (Portugal).—Choffat, P., 4.
Severn Plain, Lr. (Gloucester). — Gray, J. W.
Seville (Spain).—Friend, C. A.
Seward Peninsula (Alaska).—Smith, P. S.
Shales, Canada.—Ries, H., 3.
——, tasmanite.—Twelvetrees, W. H.
Shan States, N. (Burma).—Brown, J. C.
Shap district (Westmorland).—Garwood, E. J.
Sharon Conglomerate.—Lamb, G. F.
Shasta Co. (California).—Smith, J. P., 2.
Shell-heaps, Maine.—Loomis, F. B.
Sheridanite.—Wolff, J. E.
Shimoga district (Mysore).—Balaji Rao, B., 2.
Shiningtree, West (Ontario). — Collins, W. H.
Shippea Hill (Cambs.). — Hughes, T. McK., 2.
Shooter's Hill (Kent).—Leach, A. L., 1 & 2.
Shore-erosion.—Parvu, —
Shore-sands, Calabria.—Chelussi, I., 6.
—— ——, Liguria.—Chelussi, I., 5.
—— ——, Selsey Bill.—Heron-Allen, E.
—— -weathering, Spitsbergen. — Högbom, B.
Shoshonius.—Granger, W.
Shropshire.—Cobbold, E. S.
Shuswap Series.—Daly, R. A.
Siberia.—Backlund, H.; Dunikowski, E. H.; Gothan, W., 4; Granö, J. G.; Hautpick, E. de; Janishevski, M.; Krishtofovich, A. N., 2; Kuznetzov, S. D.; Launay, L. de; Novopokrovskii, I.; Nowak, J., 1 & 2; Pankov, A.; Pavlov, A. P.; Poluinov, B. B.; Smirnov, V. P.; Tokarski, J.; Tolmachev, J. P.; Wittenburg, P. von, 2.
——. *See also* Yeniseisk Gov., *&c.*
Sicanites.—Arthaber, G. von.
Sichota-Alin (Siberia).—Dunikowski, E. H.; Nowak, J., 1 & 2; Tokarski, J.
Sicily.—Douvillé, R., 2; Franco, S. di; Fucini, A., 5; Gregorio, A. de; La Valle, G.; Oddo, G.; Ponte, G; Sieberg, A., 2; Silvestri, A., 2; Stefano, Giov. di.
Siderastrœa.—Filliozat, M., 2.
Siderite.—Schaller, W. T., 2.
Siderolites.—Silvestri, A., 2.
Sideroxylon.—Engelhardt, H.
Sidmouth (Devon).—Woodward, H. B., 4.
Sidneya.—Steinmann, J. H. C. G. G., 6.
Sidneyia.—Walcott, C. D.
Siegen (Westphalia).–Ahlburg, J.; Bornhardt, W.
Siena (Tuscany).—Andreucci, A.
Sierra de Guadalajara (Spain).—Douxami, H.
Sierra Nevada (Calif.).—Baker, C. L., 3.
Sigaretus.—Böse, E.; Vincent, E.
Sigillaria.—Arber, E. A. N., 4 & 7; Frič, A.; Vernon, R. D.
Silesia.—Behr, J.; Berg, G., 2; Finckh, L., 2; Gullachsen, B. C.; Hörnes, R., 3; Michael, R., 1 & 2; Mohr, H., 3 & 4; Scupin, H.; Staff, H. von; Tietze, O., 1 & 3.
Silesites.—Stolley, E., 2.
Silica. — Bain, H. F.; Fenner, C. N.; Tucan, F.
Silicates, alkalies in.—Mækinen, E.
——, cooling of.—Königsberger, J., 4.
——, viscosity of.—Dölter, C., 4.
Silicification by springs.—Lacroix, A. F. A., 28.
Sillimanite with gold.—Watson, T. L.
—— -schist.—Kišpatić, M.
Silurian, Belgium.—Malaise, C. H. G. L., 1–4.
——, Bolivia.—Steinmann, J. H. C. G. G., 7.
——, China.—Richthofen, F. von.
——, Kashmir. — Middlemiss, C. S.; Reed, F. R. C., 4.
——, Kerry.—McHenry, A.
——, Kincardineshire.—Campbell, R., 4.
——, Mayo.—Gardiner, C. I., 2.
——, New Brunswick.—Ells, R. W.
——, New York.—Luther, D. D.
——, Norway.—Björlykke, J. O.
——, Ontario.—Whiteaves, J. F.
——, Pas-de-Calais.—Gosselet, J. A. A., 10.
——, Poland.—Siemiradzki, J.

Silurian, Portugal.—Delgado. J. F. N.
——, Prince Regent Inlet.—Lee, G. W., 2.
——, Saxony.—Hundt, R.
——, Somerset.—Reynolds, S. H., 1 & 3.
——, Spain.—Grosch, P., 2.
——, Staffordshire.—King, W. W.
——, Sweden.—Lidén, R.; Moberg, J. C.
——, Victoria.—Chapman, F., 7 & 11.
——, Wales.—Jones, O. T.; Strahan, A., 2.
——. *See also* Gothlandian.
Silurian inlier, Usk.—Gardiner, C. I.
Silver, Mexico.—Keyes, C. R., 4; Van Horn, F. R.
——, Ontario.—Hore, R. E.
——, Saxony.—Beck, R.
——, United States. — Eakle, A. S.; McCaskey, H. D.; Weed, W. H.
——, unusual occurrence of.—Coghill, W. H.
—— deposits, genesis of.—Matteson, W. G., 3.
—— ——, minerals common to.—Matteson, W. G., 2.
—— districts, geology of.—Matteson, W G.
Silver-lead. Zeehan.—Twelvetrees, W. H., 2.
—— —— deposits, British Columbia.—Schofield, S. J., 2.
Silvite.—Miele, A. G.
Simav (Asia Minor).—Bauer, M., 2.
Simbirsk (Russia).—Mazarovich, A., 1 & 2.
Simbirskites. — Douvillé, R.; Joleaud, L.
Simcoe, Lake (Ontario).—Johnston, W. A.
Simoceras.—Burckhardt, C.
Simplon district (Pennine Alps).—Rothpletz, A., 3.
Simplon Tunnel, thermal water from.—Chuard, E.
Sinai.—Klebelsberg, R. von.
Sinchisite—Quercigh, E.
Sinemurian.—Rassmuss, H., 3.
Sinno Valley (Basilicata).—Lorenzo, G. de.
Sioux Falls (S. Dakota).—Shimek, B., 2.
Sioux Valley, Little (Iowa).—Carman, J. E.
Siphonalia.—Martin, K.
Siphonotreta.—Steinmann, J. H. C. G. G., 7.
Sir Sandford Glacier (B.C.).— Palmer, H.
Sirenites.—Burckhardt. C., 2.
Sireth R. (Moldavia).—Enculescu, P.
Sitka mining district (Alaska).—Knopf, A.
Siwalik Hills (India).—Pilgrim, G. E.
Sjangeli (Sweden).—Mesdag, F. T.
Skagit Valley (B.C.).—Camsell, C., 3.
Skeena River (B.C.).—Malloch, G. S.
Skerries, palingenesis in Finnish. — Sederholm, J. J., 5.
Skye (Hebrides).—Bailey, E. B., 3.
Slănic (Rumania).—Merutz, V.
Slates, Styria.—Heritsch, F., 3.
——, auriferous.—Howitt, A. M., 4.
Slickensides, Chalk.—Whitaker, W., 2.
Smilax.—Engelhardt, H.
Smilodon.—Lotichius, A.
Smithsonite.—Serra, A.; Tacconi, E., 2.
Smittia.—Canu, F.
Snow-line.—Paschinger, V.
Snow-patches, Ben Nevis.—Gregory, J. W., 6.
Soda-deposits, Egypt.—Lucas, A.
Sodalite, fluorescence in ultraviolet light.—Liebisch, T., 2.
Sogn (Norway).—Kolderup, C. F., 5.
Soil-creep.—Deeley, R. M., 6; Pocock, R. W.
Soils.—King, F. H.; Woodward, H. B.
——, Africa (N.).—Gin, G.; Vinassa de Regny, P., 6 & 9.
——, Aradhegyalja Mts.—Treitz, P., 3.
——, Cornwall.—Flett, J. S., 4.
——, Germany.—Jentzsch, C. A., 8.
——, Illinois.—Van Horn, F. B.
——, Norway.—Björlykke, K. O., 3.
——, Rumania.—Murgoci, G.
——, Russia.—Tumin, G. M., 1 & 2.
——, Sweden.—Atterberg, A.
——, analysis of.—Gedroiz, K.
——, classification of.—Fippin, E. O.
——, cloudbursts and. — Taramelli, T., 4.
——, evaporation in.—Principi, P., 3.
——, manganese in.—Gortner, R. A.
——, wind and.—Stamm, K.
SOLANA, J., *Obit.*—*See* Adaro, L. de.
Solarium.—Böse, E.
Solatia.—Cerulli-Irelli, S., 2.
Solecurtus.—Böse, E.
Solen.—Johnson, D. W.; Toula, F., 2.
Solenastræa.—Filliozat, M., 2; Oppenheim, P.
Solenhofen Stone.—Staff, H. von, 5.
—— ——, effect of pressure on.—Adams, F. D.
Solenocheilus.—Hind, W.
Solenomya.—Richthofen, F. von; Stefano, Giov. di.
Solenosteira.—Guppy, R. J. L., 2.
Solifluction, Spitsbergen. — Meinardus, W., 1 & 2.
Solling (Rhenish Prussia).—Grupe, O., 4.
Solomon district (Alaska). — Smith, P. S.
Solothurn (Switzerland).—Delhaes, W., 2; Künzli, E.; Mühlberg, F., 2.
Sölvsbergite.—Skeats, E. W.
Sombyó (Hungary).—Vitalis, S.
Somerset.—Masson, I.: McMurtrie, J.; Reynolds, S. H., 3; Sibly, T. F.
Somme (France).—Commont, J.; Commont, V.; Gosselet, J. A. A., 2.
Somogy (Hungary).—Kormos, T., 7.
Sonnblick Mts. (Tyrol).—Kober, L., 4; Stark, M.
Sonnenburg (Tyrol). —Brunner, A.

Sonora (Mexico).—Lee, M. L.; Lumholtz, C.
Sontheimia.—Kolb, R.
Soomylacris.—Bolton, H.
Soonwald (Rhenish Prussia). — Vierschilling, A.
Sophora.—Engelhardt, H.
Soputan Volcano (Minahassa).—Ahlburg, J., 3.
Sorites.—Douvillé, H., 2.
Sorrel, Mount (Leicester).—Bennett, F. W., 2.
Souchez (Pas-de-Calais).—Gosselet, J. A. A., 6.
Soundings, Bay of the Seine.—Thoulet, J.
——, English Channel.—Hull, E., 2.
——, Gulf of Lions.—Thoulet, J., 2.
Soungaria.—Seward, A. C., 2.
South Africa.—Broom, R., 4 & 6; Kaiser, E., 2; Mellor, E. T., 3; Rogers, A. W.; Sawyer, A. R.; Schwarz, E. H. L., 1 & 3; Wagner, P. A. *See also* SOUTH AFRICA, Dep. Mines.
South Australia.—Brown, H. Y. L.; Howchin, W.; Murphy, W. F.; Stirling, E. C. *See also* SOUTH AUSTRALIA, Dep. Mines.
South Mountain (Pennsylvania). — Eaton, H. N.
South Pole Expedition.—*See* GERMANY.
South Wales Coalfield. — Strahan, A., 2.
Southern Rhodesia. — *See* SOUTHERN RHODESIA, Geological Survey.
SOUZA-BRANDÃO, V., bibliography of.—*See* Souza-Brandão, V., 3.
Soziolites.—Dietz, E.
Spain.—Barandica y Ampuero, M. de; Douxami, H.; Ewald, R.; Grosch, P., 2 & 3; Groth, G., 2; Harlé, É., 3 & 4; Llord y Gamboa, R.
Spalax.—Kormos, T., 17.
Spaniorinus.—Cossmann, M., 2.
Spanish Peaks (Colorado).—Zimányi, K., 3.
Spatangus.—Hawkins, H. L., 1 & 6.
Spathic iron-ore, Siegen.—Bornhardt, W.
Species, extinction of.—Larger, R.
Specific gravity, determination of. — Linck, G.
—— —— of mixtures.—Sharwood, W. J.
—— —— of plutonic rocks.—Becke, F. J. K.
SPEZIA, G., *Obit.*—*See* Anon., 15.
Sphæroceras.—Böhm, G., 2.
Sphærococcites.—Engelhardt, H.
Sphærocodium.—Rothpletz, A., 2.
Sphæroidina.—Canavari, I.
Sphæropthalmus.—Holtedahl, O.
Sphærosiderite.—Liesegang, R. E., 5.
——, Belgian petroliferous. — Lohest, M., 4; Stainier, X., 4.
Sphalerite.—Allen, E. T., 3.
Sphallopteris.—Fliche P.
Sphenaulax.—Kolb, R.
Sphenoclase.—Goldschmidt, V. M., 2.
Sphenolepidium.—Seward, A. C., 2.
Sphenolepis.—Berry, E. W., 1 & 4.
Sphenophyllum.—Arber, E. A. N., 4 & 8; Vernon, R. D.
Sphenopteris.—Arber, E. A. N., 3, 4, 7, & 9; Bertrand, P., 2; Johnson, T; Seward, A. C., 2 & 3; Thomas, H. Hamshaw: Vernon, R. D.
Sphenotrochus.—Filliozat, M., 2.
Sphyradium.—Kennard, A. S.
Sphyrna.—Stefano, Gius. de, 3.
Spilites.—*See* Pillow-lava.
Spinale, Mt. (Tyrol).—Schwinner, R., 2.
Spirialis.—Kört, W.
Spirifer.—Assmann, P.; Garwood, E. J.; Gortani, M.; Grosch, P., 2; Herrmann, F., 1 & 3; Kindle, E. M., 4; Lebedev, N.; Nechaev, A. V.; Richthofen, F. von; Vadász, M. E.; Vinassa de Regny, P.
Spiriferina.—Garwood, E. J.; Haas, O.; Nechaev, A. V.; Richthofen, F. von; Vadász, M. E.
Spirigera.—Tommasi, A.; Vadász, M. E.
Spirodiscus.—Kormos, T., 7 & 8.
Spirophyton.—Krishtofovich, A. N., 2.
Spirorbis.—Chapman, F., 8.
Spiti Shales, Himalayas.—Uhlig, V. K.
Spitsbergen.—Adan de Yarza, R., 2; Drygalski, E. von, 3; Gothan, W.; Högbom, B., 1 & 2; Hoel, A.; Holmsen, G.; Lamplugh, G. W.; Meinardus, W., 1 & 2: Nordmann, V.; Patterson, W. H.; Stolley, E., 3; Wittenburg, P. von, 1 & 4; Woodward, A. S., 7.
Splügen (Italo-Swiss Alps).—Stella, A.
Spoleto (Umbria).—Lotti, B., 3.
Spongeliomorpha.—Canavari, I.
Sponges. *See* Porifera.
Spongillopsis.—Fliche, P.
Spongites.—Dettmer, F.
Sporadoceras.—Vinassa de Regny, P.
Sporadopyle.—Kolb, R.
Sporadoscinia.—Schrammen, A.
Sporocarpon.—McLean, R. C.
Sportella.—Cossmann, M., 2.
Springfield (Illinois).—Savage, T. E.
Springs, Cape Colony.—Schwarz, E. H. L., 2.
——, Dalmatia.—Kerner, F. von.
——, Hungary.—Gerö, F.; Schréter, Z., 4.
——, Tyrol.—Kerner, F. von, 2.
——, Wiesbaden.—Fresenius, H.
——, limestone.—Angelis d'Ossat, G. de; Lloyd, J.
——, silicification by.—Lacroix, A. F. A., 28.
——. *See also* Mineral, Radioactive, *&* Thermal springs.
Springvale (Trinidad).—Guppy, R. J. L., 1 & 2.
Squatina.—Woodward, A. S., 3 & 4.
Stacheoceras.—Arthaber, G. von.

Stachycarpus.—Fritel, P. H.

Stachypteris.—Thomas, H. Hamshaw, 3.

Staffordshire.—King, W. W.

Stampian.—Dollfus, G. F., 2.

Stanley Falls (Belgian Congo).—Passau, G., 2.

Stantonoceras.—Johnson, D. W.

Starlex, Piz (Grisons).—Tarnuzzer, C.

Starunia (Galicia).—Abel, O., 7.

Stassfurt (Prussia).—Riedel, O.

'Stauåsar.'—Hess von Wichdorff, H., 8.

Staunton (Va.).—Kindle, E. M.

Stauractinella & *Stauroderma.*—Kolb, R.

Staurolite.—Brauns, R., 2; Hopmann, P. M.

—— -schist, Croatia.—Kišpatić, M.

Stavelot massif (Liége).—Anten, J., 3.

Stavropol (Russia).—Sintzov, I. T., 2.

Steatite.—Kernthaler, A.; Middlemiss, C. S., 2.

Stebnik (Galicia).—Windakiewicz, E.

Steelport R. Valley (Transvaal).—Hall, A. L., 2.

Steeprock Lake (Ontario).—Lawson, A. C.

Steeprock Series.—Walcott, C. D., 6.

STEFANESCU, G., *Obit.*—*See* Watts, W. W.

Stegocephala.—Ryabinin, A. N.; Schönfeld, G.

Stegosaurus.—Nopcsa, F., 1 & 2.

Steinitten (East Prussia).—Hess von Wichdorff, H.

Steinmannella.—Welter, O. A.

Steinmannia.—Vinassa de Regny, P., 2.

Stellipora.—Bassler, R. S.

Stellispongia.—Vinassa de Regny, P., 3; Welter, O. A.

Stelznerite.—Schaller, W. T., 21.

Stenodictya.—Meunier, F., 3.

Stenodictyoneura.—Leriche, M., 2.

Stenognathus.—Hussakov, L.

Stenomyelon.—Kidston, R., 2.

Stenoneura.—Meunier, F., 3.

Stenophragma.—Munro, M.

Stenopora.—Lee, G. W.; Munro, M.; Vinassa de Regny, P., 4.

Stenorachis.—Seward, A. C., 3.

Stephanite.—Ungemach, H.

Stephanoceras.—Böhm, G., 2; Papp, K. von.

Stephanocosmia.—Stefano, Giov. di.

Steppes, siliceous dust-deposits.—Tumin, G. M., 2.

Sterculia.—Engelhardt, H.; Fritel, P. H.

Sterecephalus.—Lambe, L. M.

Stereochlamis.—Schrammen, A.

Stereogemys & *Sternothærus.*—Dacqué, E., 2.

Stevenage (Herts).—Hill, W., 3.

Stibnite.—Ford, W. E., 4.

Stichmaptyx.—Schrammen, A.

Stictopora & *Stictoporella.* — Bassler, R. S.

Stigmaria.—Arber, E. A. N., 9; Frič, A.

Stigmarites.—Fliche, P.

Stigmatella.—Bassler, R. S.

Stilbite.—Smith, H. G.

Stirling.—Dron, R. W.

Stockach (Baden).—Knupfer, S.

Stockholm, agro-geological conference, 1910.—Treitz, P., 2.

'Stomach-stones,' fossil.—Moodie, R. L.; Schaffer, F. X., 5.

Stomatopora.—Bassler, R. S.

Stomopneustes.—Jackson, R. T.

Stone-Age, Fennoscandia.—Hansen, A. M.

—— ——, W. Europe.—Schmidt, R. R., 3.

Stone industry, Belgium & Germany.—Hebbel, E.

'Stone-runs,' Spitsbergen.—Meinardus, W., 1 & 2.

Stone (Bucks.).—Davies, A. M.

Stone (Worcester).—Cantrill, T. C.

Stonehaven (Kincardine). — Campbell, R., 1 & 3; Evans, J. W., 5; Traquair, R. H., 4.

Stony Creek (Victoria). — Dunn, E. J., 3.

Storeton (Cheshire).—Beasley, H. C.

Stormberg Mts. (S. Afr.).—Broom, R., 12.

Stort Basin (Essex).—Irving, A., 3.

Stramberg (Moravia).—Withers, T. H., 5.

STRANGWAYS, C. E. F., *Obit.* — *See* Lamplugh, G. W., 6.

Straparollus.—Böhm, G., 2; Dietz, E.; Vadász, M. E.

Strasburg (Alsace).—Gerland, G., 1 & 2.

Stratification.—Louderback, G. D.

——, diagonal.—Toula, F., 3.

Stratigraphical names.—Bather, F. A., 4; Jukes-Browne, A. J.; Lang, W. D.

Straubing (Bavaria).—Rothpletz, A.

Streblites.—Böhm, G.; Till, A.

Streptorhynchus.—Girty, G. H.; Richthofen, F. von.

Striatella.—Kormos, T., 8.

Stringocephalus.—Gortani, M.

Strombina.—Toula, F., 2.

Stromboli.—Brun, A.

Strombus.—Böse, E.

Strombus bubonius-Beds, W. Mediterranean.—Gignoux, M.

Stromactinia.—Vinassa de Regny, P., 4.

Stromatopora.—Osimo, G.; Papp, K. von, 2; Parona, C. F., 3; Richthofen, F. von.

Stromatoporoid limestone. — Chapman, F., 7.

Stromatoporoids.—Kirkpatrick, R., 2–5.

Strongylocentrotus.—Jackson, R. T.

Strophalosia.—Kindle, E. M., 4; Nechaev, A. V.

Stropheodonta.—Kindle, E. M., 4.

Strophomena.—Assmann, P.; Gortani, M.; Herrmann, F., 1 & 3.
Strüverite.—Crook, T., 5; Lacroix, A. F. A., 26; Scrivenor, J. B., 4.
Strytur Volcano (Iceland). — Komorowicz, M. von, 2.
Stühlingen (Baden).—*See* BADEN.
Styliolina Limestone.—Lee, G. W., 2.
Stylophora.—Oppenheim, P.
Stypstee Drift (Waterberg).—Anderson, W.
Styrax.—Engelhardt, H.
Styria.—Görgey, R., 7; Heritsch, F., 1–5 & 7; Leitmeier, H.; Sigmund, A., 1 & 2; Uhlig, V. K., 3.
Submerged Forests.—Osborn, T. G. B.; Wright, W. B.
Subsidence, New Zealand.—Cotton, C. A.
——, saliferous masses and.—Lachmann, R.
Subterranean water-circulation & lodes. —Collins, J. H., 3.
Succinea.—Kennard, A. S.
Sudak (Crimea).—Andrusov, N. I., 3.
Sudan (Africa).—Arnaud, H.; Dunn, S. C.; Hubert, H., 1 & 2; Lemoine, P., 5.
Sudbury (Suffolk).—Hill, E.
Sudbury (Vermont).—Dale, T. N.
Suez (Egypt).—Ball, J.; Couyat, J., 2.
Suffolk.—Bell, A.; Hill, E.; Keith, A., 4; Lankester, Sir E. Ray; Lydekker, R.; Moir, J. R., 2–5; Slater, G., 1 & 2; Sturge, W. A., 2; Underwood, W.; Woodward, H. B., 2.
Sula Is. (Dutch East Indies).—Böhm, G., 2.
Sulphates, Tyrol.—Brunner, A.
——, dehydration of.—Gaudefroy, C.
Sulphides, oxidation of.—Gottschalk, V. H.
Sulphur.—Bridges, J. H.; Oddo, G.; Tacconi, E., 2; Ungemach, H.
——, origin of.—Stutzer, O., 2; Krümmer, A., 3.
Sulphur-springs, Inn Valley.—Münichsdorfer, F.
Sulu (Philippine Is.).—Smith, W. D.
Sumatra (Dutch East Indies).—Tobler, A.
Sumbawa I. (Dutch East Indies).—Rack, G.
Sunda Is. (Dutch East Indies).—Hagen, B.
Sun-spots, earthquakes and.—Montessus de Ballore, F. de, 6.
Superior, Lake (N. America).—Van Hise, C. R.; Zapffe, C.
Suphelle Glacier (Norway).—Monckton, H. W.
Surcula.—Toula, F.; Weaver, C. E., 2.
Surinam (Dutch Guiana).—Verloop, J. H.
Surrey.—Bromehead, C. N.; Crosfield, M. C.; Dewey, H., 2; Leighton, D.; Whitaker, W., 1–2 & 4.
Surveying instrument.—Hirschi, A.
Sus.—Stefano, Gius. de.
Susitna R. (Alaska).—Moffit, F. H.
Sussex.—Heron-Allen, E.
Sutton Formation.—Clapp, C. H., 3.
Suze R. (Switzerland).—Heberhardt, B., 2.
Suzzaro (Emilia).—Roccati, A., 2.
Svelvik (Norway).—Œyen, P. A., 7.
Swabia.—Dietrich, W. O.; Fraas, E.; Kolb, R.; Pontoppidan, H.; Werner, E.
Swanage (Dorset).—Woodward, A. S., 6.
Swanport (S. Australia). — Stirling, E. C.
Swansea (Glamorgan).—Roberts, J.
Sweden.—Adan de Yarza, R., 2; Bergeat, A., 2; Björlykke, K. O., 2; Fermor, L. L., 2; Geer, G. de; Geer, S. de; Geijer, P., 4; Grönwall, K. A., 2; Hamberg, A., 2; Hansen, A. M.; Hedström, H., 1 & 2; Holst, N. O.; Horne, J.; Kilian, C. C. W., 5; Kossmat, F.; Mesdag, F. T.; Moberg, J. C.; Œyen, P. A., 4; Post, L. von; Quensel, P. D., 4; Termier, P., 2.
——, earthquakes, 1907–10. — Sahlström, K. E.
——, highlands of.—Hamberg, A.; Seidlitz, W. von, 3.
——. mineralogy of.—Flinck, G.
Swedish Arctic & Antarctic Explorations, 1758–1910.—Hulth, J. M.
Swinemünde (Pomerania). — Keilhack, L. H. K., 2.
Switzerland.—Æberhardt, B., 2; Arbenz, P., 2; Baltzer, A.; Blösch, E.; Bonney, T. G., 2; Buxtorf, A., 3; Frei, R.; Früh, J., 1 & 2; Grubemann, U., 3; Heim, Alb., 1–3; Heim, Arn.; Lochmann, J. J.; Müller, F. C., 2; Reich, H.; Rytz, W.; Salomon, W., 5; Sarasin, C.; Schaay, J. H.; Schardt, H.; Seeber, H.; Studer, T., 2 & 3; Tarnuzzer, C., 2; Wilckens, O., 2; Zschokke, F.; *see also* Grisons, *&c.*
Sydney (N.S.W).—Steel, T., 2.
Syenite, Guinea.—Lacroix, A. F. A., 16.
——, Japan.—Kôzu, S., 2.
——, Los I.—Lacroix, A. F. A., 2.
——, New York.—Miller, W. J.
——, Patagonia —Quensel, P. D.
——, Portugal.—Souza-Brandão, V., 2.
——, Sweden.—Geijer, P., 2 & 4; Quensel, P. D., 4.
——, Transylvania.—Reinhard, M., 3.
Sylvilagus.—Kellogg, L.
Sylvine.—Kreutz, S., 2, 3.
Sylt (Frisian Is.).—Stolley, E., 4.
Symphoromyia.—Cockerell, T. D. A., 2.
Symphysurus.—Raymond, P. E.
Syncarpites.—Krishtofovich, A. N., 4.
Synclinal valley, Spain.—Grosch, P., 3.
Synechodus.—Woodward, A. S., 3.
Synopella.—Welter, O. A.

Syracuse (Sicily).—Stefani, C. de, 2.
Syria.—Erasmo, G. d'.
Syringium.—Schrammen, A.
Szajbelyite.—Löw, M., 2.
Szarvaskö (Hungary).—Pálfy, M. von.
Szatmár (Hungary).—Roth von Telegd, K.
Szeleta Cavern (Hungary).—Hillebrand, E.
Szinérváralja (Hungary). — Roth von Telegd, K.
Szörény (Hungary).—Schréter, Z., 2.
Szvinica (Hungary).—Koch, F.

Tabulipora.—Lee, G. W.
Tachea.—Lörenthey, I. von.
Tachylyte.—Heslop, M. K., 2.
Tæniopteris.—Berry, E. W.; Krishtofovich, A. N.; Seward, A. C., 2; Thomas, H. Hamshaw; Zeiller, R.
Tainoceras.—Richthofen, F. von.
Taliabu I. (Dutch East Indies).—Böhm, G., 2.
Talihina (Oklahoma).—Woodworth, J. B.
Taman Peninsula (S. Russia).—Popov, S. P., 2.
Tancítaro, Mt. (Mexico).—Ordoñez, E.
Tandil (Buenos Ayres).—Kuehn, F.
Tangkoeban Prahoe (Java).—Douglas, E. A.; Fennema, R.
Taonurus.—Fliche, P.; Krishtofovich, A. N., 2.
Tapes.—Böse, E., 3; Herrick, C. L., 2; Weaver, C. E., 2.
Tapes Zone, Jæderen.—Œyen, P. A.
Tararua Ranges (N.Z.).—Adkin, G. L.
Tarawera (N.Z.) eruption, 1886.—Park, J.
Tarr, R. S., *Obit.*—*See* Anon., 16; *&* Lamplugh, G. W., 7.
Tarragona (Spain).—Bentabol, H., 2.
Tartagel (Argentina).—Carlés, E. de, 3.
Tasmania.—David, T. W. E.; Howchin, W., 2; Hull, A. F. B.; Nötling, F., 3 & 4; Twelvetrees, W. H., 1 & 2; Ward, L. K., 1-4.
——. *See also* Tasmania, Dep. of Mines.
Tasmanian & Victorian Jurassic, correlation.—Chapman, F., 9.
Tasmanite-shales.—Twelvetrees, W. H.
Tata (Hungary).—Kormos, T., 17.
Tatra Mts. (Hungary).—Götel, W.
Taubach (Croatia).—Siegert, L.
Tauben Bank sediments (Bay of Naples).—Walther, J. K.
Tauerlauken, Klein (E. Prussia).—Hess von Wichdorff, H., 3.
Tauern (Austria).—Becke, F. J. K., 6; Kober, L., 5; Sander, B., 1 & 3; Termier, P., 4; Waagen, L., 2.
Tauern, Hohe (Tyrol).—Heritsch, F., 8 & 9; Sander, B., 6; Stark, M.; Termier, P., 3.
Taunus Mts. (Hesse).—Drevermann, F., 4; Gerth, H.; Schneiderhöhn, H., 2.
Taurops.—Broom, R., 6.
Tavistock (Devon).—Reid, C., 3.
Taxodioxylon.—Gothan, W., 1 & 2.
Taxodium.—Berry, E. W., 5; Engelhardt, H.
Tectonic geology, development of.—Krümmer, A.; Van Werveke, L., 6.
Tehuantepec, Isthmus of (Mexico).—Band, P.; Toula, F.
Teify Anticline (Central Wales).—Jones, O. T.
Teinostoma.—Toula, F., 2.
Tekir, Lake (Rumania).—Pascu, R.
Telerpeton.—Huene, F. von, 1 & 2.
Telescopium.—Martin, K.
Tellina.—Canavari, I.; Herrick, C. L., 2; Toula, F., 2; Weaver, C. E., 2.
Telluride Quadrangle (Colorado).—Hole, A. D.
Tellurides, Kalgoorlie.—Thomson, J. A.
Telmatherium.—Gregory, W. K.
Temblor Basin (California).—Anderson, F. M.
Temmenhausen (Würtemberg).—Fraas, E., 3.
Temnocheilus.—Böhm, J., 3.
Temperature, Comstock Lode.—Locke, A.
——, underground.—Königsberger, J., 8; Michael, R., 2.
—— in oil-regions.—Höfer, H. von.
Tempskya.—Berry, E. W.; Kidston, R., 3.
Tendaguru Expedition.—Hennig, E.
Teneriffe (Canary Is.).—Komorowicz, M. von, 2.
Tennessee (U.S.A.).—Bassler, R. S.; Gordon, C. H., 2; Purdue, A. H.
Tentaculites.—Gortani, M.; Grosch, P., 2; Kindle, E. M., 4; Leriche, M.
Tephrite. — Goldschlag, M.; Krehan, A.
Terebella.—Grönwall, K. A.; Leriche, M., 3.
Terebra.—Toula, F., 2.
Terebratula.—Clapp, C. H., 3; Gortani, M.; Krenkel, E.; Popescu-Voitesti, I.; Vadász, M. E.
Teredo.—Canavari, I.
Terminalia.—Engelhardt, H., 1 & 2.
Termini-Immerese (Sicily). — Silvestri, A., 2.
Terminology. *See* Nomenclature.
Ternstrœmia.—Engelhardt, H.
'Tero-Watta' implements. — Nötling, F., 2.
Terquemia.—Tommasi, A.
Terraces, Alpine lacustrine.—Lautensach, H.
——, Ariège.—Mengaud, M.
——, California.—Wittich, E., 6.
——, Crimea.—Andrusov, N. I., 3.
——, Dauphiné.—Kilian, C. C. W., 7; Martin, D., 3.
——, Inn Valley.—Ampferer, O., 2.
——, Lombardy.—Patrini, P., 1 & 2.
——, Pennsylvania.—Shaw, E. W., 2.

Terraces, Rhône R. — Assada, I.; Lamothe, R.
——, South of England.—Hull, E., 2.
——, Weistritz Valley.—Berg, G., 2.
——, Wiesbaden.—Gerth, H.
——, river-.—Dietrich, B., 2.
Terranova Pausania (Sardinia).—Lovisato, D., 4.
Terremare, Europe.—Munro, R.
Tersomius.—Case, E. C.
Tertiary, Angola.—Freire de Andrade, A. A.
——, Anhalt.—Ziervogel, H.
——, Aragon & Navarre.—Carez, L., 3.
——, Asia Minor.—Berg, G.; Philippson, A.
——, Baden.—Knupfer, S.
——, Bernese Alps.—Seeber, H.
——, Bohemia.—Kafka, J.
——, Britanny.—Barre, H. du Laurens de la; Kerforne, F.
——, Bukowina.—Niedzwiedzki, J.
——, Burma.—Stuart, M.
——, California. — Anderson, F. M.; Baker, C. L; Clark, B. L.; Lindgren, W.
——, Carolina (South).—Brown, A. P., 2.
——, Carpathians. — Popescu-Voitesti, I., 5; Simionescu, I.
——, Caucasus.—Ryabinin, A. N., 3.
——, China.—Richthofen, F. von.
——, Colorado.—Richardson, G. B.
——, Fayûm.—Newton, R. B.
——, Germany.—Fliegel, G.; Kinkelin, F.; Linstow, O. von, 2.
——, Hanover.—Harbort, E.
——, Hesse.—Mordziol, C., 3.
——, Holland.—Klein, W.
——, Hungary.—Gaál, S. von, 2; Schréter, Z., 2; Vogl, V.; Wachner, H., 2.
——, Italy. — Cerulli-Irelli, S., 2; Kranz, W., 7; Thiel, G.
——, King I.—Chapman, F., 5.
——, Lattengebirge.—Lebling, C.
——, Mainz Basin.—Steuer, A., 1 & 2; Mordziol, C.; Wenz, W., 2.
——, Mexico.—Böse, E.; Dumble, E. T., 2.
——, Morocco.—Gentil, L., 2.
——, New Zealand.—Park, J., 2 & 3.
——, Nord.—Gosselet, J. A. A., 7.
——, Paris Basin.—Courty, G., 2; Dollfus, G. F., 4.
——, Pomerania.—Hess von Wichdorff, H., 7.
——, Rumania.—Ionescu, N.; Mrazek, L., 2; Murgoci, G., 2.
——, Russia.—Arkhanghelski, A. D., 2.
——, Santander.—Mengaud, L.
——, Sardinia.—Chelussi, I., 3.
——, Saxony.—Linstow, O. von, 4.
——, Silesia.—Petrascheck, W.
——, Tunis.—Roux, H.
——, Tuscany.—Stefani, C. de.
——, Venetia.—Fabiani, R.
——, Vorarlberg.—Mylius, H.
——, Washington.—Weaver, C. E., 2.
Tertiary, West Africa.—Stromer, E.
——, Würtemberg.—Fraas, E., 3.
—— Australian earth-movements. — Howchin, W.
—— basaltic eruptions, Hanover. — Grupe, O.
Tertiary & Cretaceous contact, California.—Dumble, E. T.
Tertiary freshwater deposits, India. — Pilgrim, G. E.
——, West European mollusca.—Tesch, P.
——. *See also* Eocene, Stampian, *&c.*
Tervueren (S. Brabant).—Mourlon, M. F., 2; Rutot, A. L., 2.
Teschen (Silesia).—Petrascheck, W.
Teschenite.—Rachkovskič, I. P., 2 & 3; Stieglitz, O.; Tyrrell, G. W.
Testudo.—Dacqué, E., 2.
Tetragraptus.—Steinmann, J. H. C. G. G., 7.
Teutloporella.—Pia, J. von.
Teutoburg Forest (Westphalia).—Burre, O.; Mestwerdt, A., 2.
Texas (U.S.A.).—Case, E. C.; Gordon, C. H.; Moodie, R. L., 4; Paige, S., 3.
Text-books, agricultural geology. — Woodward, H. B.
——, chemical geology.—Elsden, J. V.
——, crystallography.—Tutton, A. E. H., 2.
——, geology.—Haug, É.; Kayser, E.
——, mineral chemistry. — Dölter, C., 5.
——, mineralogy. — Ford, W. E., 3; Hatch, F. H., 3; Hintze, C.
——, petrographic methods. — Weinschenk, E. H. O. C.
——, petroleum geology.—Craig, E. H. C.
——, petrology.—Adye, E. H.; Rhodes, J. E. W.
——, physical geography.—Smith, Bernard.
——, South African geology.—Schwarz, E. H. L.
——, vertebrate palæontology. — Abel, O., 9.
Textularia.—Noth, R.; Vadász, M. E., 2.
Thaba Bosigo (Basutoland).—Stanley, G. H.
Thal (Thuringia).—Hess von Wichdorff, H., 2.
Thalassochelys.—Dacqué, E., 2.
Thalattosaurus.—Huene, F. von, 5.
Thalite.—Winchell, N. H., 3.
Thallium-minerals.—Ježek, B., 2.
Thallophyta, Silurian.—Chapman, F., 11.
Thames R., former course of. — Sherlock, R. L.
Thames Subdivision (Auckland, N.Z.).—Fraser, C.
Thamnastræa.—Papp, K. von, 2.
Thanetian.—Fritel, P. H.

Thaumasite.—Butler, B. S., 2; Schaller, W. T., 21.
Thaumastocœlia.—Vinassa de Regny, P., 3.
Thaumatosaurus.—Bogholubov, N. N.
Thenardite.—Hlawatsch, C., 4.
Thenops.—Reed, F. R. C.
Theodoxus.—Kormos, T., 6.
Theralite.—Benson, W. N.; Tyrrell, G. W.
Thermal springs, Austria.—Schubert, R. J., 2.
—— ——, Bath.—Masson, I.
—— ——, Budapest.—Schréter, Z., 3.
—— ——, Landes.—Dubaleu, P. E.
—— ——, Simplon.—Chuard, E.
—— ——, Valais.—Lugeon, M., 3.
—— ——, displacement of.—Martel, E. A., 2.
—— ——, radioactivity of.—Horusitzky, H.; Massol, G.; Szilard, B.
Thetis.—Papp, K. von.
Thiene (Venetia).—Fabiani, R., 2.
Thinnfeldia.—Berry, E. W.; Gothan, W., 5; Zeiller, R.
Thomomys.—Kellogg, L.
Thomsonite.—Hibsch, J. E., 2.
Thorianite.—Kobayashi, M.
Thorisdalur (Iceland).—Wunder, L.
Thorium.—Laborde, A.
Thracian goldfield.—Dominian, L.
Thrissopater.—Moodie, R. L., 4.
Thrusts, Southern Scottish Highlands.—Barrow, G., 4.
Thun, Lake (Berne).—Wilckens, O., 3.
Thüringerwald (Thuringia). — Wolff, K.
Thuringia (Germany).—Hess von Wichdorff, H., 2 & 4; Kolesch, K; Lange, T.; Wolff, K.
Thylacoleo.—Glauert, L., 2.
Thylloxylon.—Gothan, W.
Thyrsopteris.—Berry, E. W., 6.
Thysanophyllum.—Garwood, E. J.
Tian-Shan (Turkestan).—Bogdanovich, K. I., 2; Leuchs, K.; Vadász, M. E.
Tibet (Asia).—Hedin, S. von.
Ticino (Switzerland). — Craveri, M.; Gutzwiller, E., 1 & 2; Klemm, G., 2; Lautensach, H., 2; Salomon, W., 2 & 4; Schardt, H., 2.
Tides, the earth and.—Darwin, G. H.
Tierra del Fuego (S. Am.).—Felsch, J.
Tignoso, Mt. (Tuscany).—Campana, D. Del.
Tihany (Hungary).—Halaváts, G. von; Vitalis, S.
Tijeras Coalfield (New Mexico).—Lee, W. T.
Tillite.—Halle, T. G.
Timan Mts. (Russia).—Zamyatin, A. N., 3.
Time, geological.—Geer, G. de; Hilber, V.; Holmes, A.
Timor I. (Indian Ocean).—Wanner, J.
Timorocrinus.—Wanner, J.
Tin-ore, Bolivia.—Armas, M.
Tin-ore, Cape of Good Hope. — Nellmapius, E. H.
——, Cornwall.—Bryant, V. S; Collins, J. H., 3.
——, Dutch East Indies.—Bijdendijk, J. G.
——, German S.W. Africa.—Dahms, P.
——, Malay States.—Scrivenor, J. B., 2.
——, Nigeria.—Falconer, J. D., 3.
——, Nova Scotia.—Piers, H.
——, Queensland.—Cameron, W. E., 5.
——, Ross-shire.—Peach, B. N., 4.
——, Saxony.—Beck, R.
——, Tasmania.—Ward, L. K., 2.
——, bibliography of.—Hess, F. L.
——, characters of.—Liebisch, T.
—— -deposits, genetic relations of.—Singewald, J. T., *fil.*, 3.
—— ——, geology of.—Ferguson, H. G., 2.
—— in veins, arrangement of.—Brown, G. E.
Tirolites Fauna.—Smith, J. P., 3.
Tiszahát (Hungary).—Teglás, G., 2.
Tiszolcz (Hungary).—Junghann, H.
Titanichthys.—Hussakov, L.
Titanosuchus.—Broom, R., 2.
Tithonian, Bernese Alps.—Seeber, H.
——, Dalmatia.—Bukowski, G. von.
——, Istria.—Parona, C. F.
——, Lombardy.—Rassmuss, H., 3.
——, Moravia.—Remeš, M.
Tiujamunite.—Nenadkevich, K. A., 2.
Tmetonema.—Longstaff, J.
Toarcian, Africa (N.).—Termier, P., 6.
——, Lombardy.—Rassmuss, H., 3.
—— (Upper), Yorkshire & Cotteswolds.—Buckman, S. S., 3.
Toby, Mt. (Mass.).—Emerson, B. K.
Tœchastræa.—Papp, K. von, 2.
TŒRNEBOHM, A. E., *Obit.*—*See* Anon., 17; Högbom, A. G., 1 & 2; *&* Watts, W. W.
Tokyo (Japan).—Yabe, H., 2.
TOLL, Baron E. VON, Russian Polar Expedition 1900-1903.—Backlund, H.
Tomnatek (Hungary).—Rozlozsnik, P.
Tömörd-puszta (Hungary).—Liffa, A.
Tomsk (Siberia).—Janishevski, M.
Tonalite.—Salomon, W.; Treuer, G. B.
Tongrian.—Mourlon, M. F., 2.
Tonnerre (Yonne).—Collot, L., 2.
Tonopah (Nevada).—Eakle, A. S.
Tontoia.—Walcott, C. D.
Toowoomba basalt.—Cameron, W. E., 6.
Topaz.—Jahn, A.; McLintock, W. F. P.
——, crystal model of.—Johnsen, A., 2.
Torbrook Iron-ore District (N.S.). — Fréchette, H.
Torda (Transylvania).—Balogh, E.
Torna (Hungary).—Kadič, O., 2.
Tornatina.—Cerulli-Irelli, S.; Toula, F., 2.
Torniella (Tuscany).—Panichi, U.
Tornoceras.—Arthaber, G. von; Gortani, M.; Richthofen, F. von.

Tornquistellus.—Jackson, R. T.
Tornquistes.—Lemoine, P.
Torquay (Devon).—Hunt, A. R., 1 & 2; Parkyn, E. A.
Torricelli district (Kaiser-Wilhelms-Land).—Reiber, J.
Tortoises. *See* Chelonia.
Tortworth Inlier (Gloucestershire).—Reynolds, S. H.
Töss Valley (Zürich).—Hug, J.
Toula (Russia).—Lungershausen, F. V.
Toulminia.—Schrammen, A.
Toulon (Var).—Haug, É., 2; Lanquine, A.
Toulouse (Haute-Garonne).—Bergeron, J., 2; Dereims, A.
Touraine.—Filliozat, M., 2.
Tourmaline.—Lacroix, A. F. A., 25; Schaller, W. T., 20; Umgemach, H.
Tourmaliniferous iron-ore, W. Bothnia.—Geijer, P., 3.
Tourmaliniferous rocks, Rhenish Prussia.—Brauns, R., 2.
Towy Anticline (Central Wales).—Jones, O. T.
Toxopatagus.—Canavari, I.
Toxopneustes.—Jackson, R. T.
Toyalané (New Mexico).—Keyes, C. R., 3.
Trachyandesite.—Krehan, A.
Trachycardium.—Cossmann, M., 2.
Trachyceras.—Burckhardt, C., 2; Salopek, M.
Trachydolerite.—Bartrum, J. A.; Böse, W.; Quensel, P. D.
Trachyte.—Böse, W.; Butz, J.; Quensel, P. D., 2; Reinisch, R.; Skeats, E. W.; Stieglitz, O.
—— tuffs, Laacher See.—Brauns, R.
Trachytila.—Welter, O. A.
Trails, animal.—Brown, A. P.; Hardaker, W. H.; Walcott, C. D., 4.
Transbaikalia (Siberia). — Kuznetzov, S. D.
Transcaucasia. — Bonnet, P., 1 & 2; Ryabinin, A. N., 2; Tanatar, J.
Transformations, chemical reactions and.—Königsberger, J., 7.
Transvaal (S. Afr.).—Anderson, W.; Broom, R., 8; Hall, A. L., 1–5; Horwood, C. B., 2; Humphrey, W. A., 1 & 3–5; Johnson, J. P; Kynaston, H., 1 & 2; Leitch, D. C.; Mellor, E. T.; Molengraaff, G. A. F.; Olver, J. S.; Schwarz, E. H. L., 6; Wagner, P. A., 2.
Transvaal System.—Humphrey, W. A., 5.
Transylvania (Hungary).—Balogh, E.; Erödi, K.; Gaál, S. von, 2 & 3; Lachmann, R.; Noth, J.; Pálfy, M. von, 3 & 5; Pávai-Vajna, F. von, 3; Reinhard, M., 3; Sawicki, L.; Schmidt, C.; Schumacher, F., 2; Szentpétery, S. von, 1 & 2; Vargha, G.; Wachner H., 1 & 2.
Trapa.—Post, L. von, 2.
Traquair, R. H., *Obit.*—Woodward, A. S., 11.
Traquairia.—McLean, R. C.
Travers, Val de (Neuchâtel).—Breynaert, F.
Traversella (Piedmont).—Müller, F. C.
Travertine.—Siegert, L.
Trechmannia.—Longstaff, J.
Trees, vertical position of Coal-Measure.—Barrois, C.
Treleague Quartzite.—Flett, J. S., 4.
Tremabolites.—Schrammen, A.
Tremadictyon.—Kolb, R.
Tremadoc Beds.—Lake, P.
Trematopora.—Bassler, R. S.
Trens (Tyrol).—Canaval, R.
Trent R. (Notts).—Smith, Bernard, 4.
Trent Valley (Notts.).—Lamplugh, G. W., 8.
Trentino district.—Craveri, M., 2.
Trepostomata, Carboniferous. — Lee, G. W.
Tretodictyum.—Schrammen, A.
Tretto (Vicentino).—Maddalena, L.
Trèves, *see* Trier.
Treviso (Italy).—Dal Piaz, G., 2.
Triadocœlia. — Vinassa de Regny, P., 3.
Trias, Alaska. — Atwood, W. W., 2; Martin, G. C., 2; Moffit, F. H., 2.
——, Algeria.—Joleaud, L.
——, Carnic Alps. — Arthaber, G. von, 2.
——, Caucasus. — Wittenburg, P. von, 3.
——, Cheshire. — Hewitt, W.; Travis, C. B.
——, China.—Richthofen, F. von.
——, Connecticut. — Eastman, C. R.; Lull, R. S., 4.
——, Devon.—Woodward, H. B., 4.
——, Franco-Italian Alps. — Kilian, C. C. W., 10.
——, Germany. — Bräuhäuser, M.; Bubnoff, S. von, 2; Burre, O.; Fraas, E.; Grupe, O., 3; Höhne, E.; Lebling, C.; Picard, E.; Rassmuss, H.; Schalch, F.
——, Greece.—Frech, F., 2; Négris, P., 1–3; Renz, C., 4.
——, Himalayas.—Diener, C., 5.
——, Indo-China. — Deprat, J., 1 & 3; Mansuy, H.
——, Kashmir.—Middlemiss, C. S.
——, Kent borings.—Lamplugh, G. W., 9.
——, Lancashire.—Hewitt, W., 1 & 2.
——, Lombardy. — Rassmuss, H., 3 Tommasi, A., 1 & 2.
——, Madagascar.—Merle, A.
——, Mexico.—Burckhardt, C., 2.
——, North America.—Smith, J. P., 2.
——, Nottinghamshire.—Lamplugh, G. W., 8; (& Lincolnshire.) — Smith, Bernard, 3.
——, Pennsylvania.—Wherry, E. T., 3.
——, Portugal.—Choffat, P., 5.

Trias, Spitsbergen.—Wittenburg, P. von, 1 & 4.
——, Switzerland. — Delhaes, W., 2; Jeannet, A.; Paulcke, W.; Reich, H.; Seeber, H.
——, Transcaucasia.—Bonnet, P., 2.
——, Valencia.—Ewald, R.
——, Venetian Alps.—Dal Piaz, G.
——, Wales (South).—Strahan, A.
——, Warwickshire.—Vernon, R. D.
——, Worcestershire.—Cantrill, T. C.
——, dolomitic rocks in.—Fischer, H.
——, footprints.—Beasley, H. C.
——, genesis of.—Tornquist, A., 4.
——. *See also* Keuper, *&c.*
Triassic faunal provinces.—Diener, C., 4; Smith, J. P., 3.
—— trap plateau, Brazil.—Woodworth, J. B., 3.
Tribia.—Cerulli-Irelli, S., 2.
Triblidium.—Walcott, C. D., 4.
Tribulaun, Mt. (Tyrol). — Kerner, F. von, 2.
Trichograptus.—Hall, T. S.
Tricleidus.—Mehl, M. G., 2.
Triconodon.—Woodward, A. S., 6.
Trier district (Rhenish - Prussia). — Dietrich, B.; Van Werveke, L., 1–3.
Trigonia.—Böse, E., 3; Cossmann, M.; Fucini, A., 2; Krenkel, E.; Lichkov, B. L.
Trigonocarpus.—Arber, E. A. N., 3 & 7.
Trigonodus.—Stefano, Giov. di.
Trigonostoma.—Toula, F., 2.
Trigonotarbus.—Pocock, R. I.
Trilobita, Cambrian. — Holtedahl, O.; Steinmann, J. H. C. G. G., 7; Walcott, C. D., 1, 3, & 4.
——, Carboniferous. — Girty, G. H.; Richthofen, F, von.
——, Devonian.—Bather, F. A.; Gortani, M.; Gosselet, J. A. A., 10; Herrmann, F., 1 & 3; Kindle, E. M., 4; Steinmann, J. H. C. G. G., 7; Wedekind, R.
——, Ordovician. — Raymond, P. E.; Reed, F. R. C., 2 & 3; Walcott, C. D., 2.
——, Silurian.—Chapman, F.; Reed, F. R. C., 4; Steinmann, J. H. C. G. G., 7; Wedekind, R.; Whiteaves, J. F.
——, mode of life of.—Staff, H. von, 4.
——, tracks of.—Walcott, C. D., 4.
Trimerocephalus.—Herrmann, F., 1 & 3; Wedekind, R.
Trimingham (Norfolk).—Bonney, T. G., 4.
Trinacromerum.—Bogholubov, N. N.
Trinidad (West Indies).—Bosworth, T. O., 2; Craig, E. H. C.; Evans, J. W., 4; Guppy, R. J. L., 1 & 2; Maury, C. J.
Trinity R. Basin (California).—Diller, J. S.
Trinucleus.—Reed, F. R. C., 3; Steinmann, J. H. C. G. G., 7.
Trionyx.—Dacqué, E., 2; Fucini, A., 4.
Triplecia.—Reed, F. R. C., 4.
Tripneustes.—Jackson, R. T.
Trirachodon.—Broom, R., 2.
Tritheledon.—Broom, R., 12.
Triton.—Cerulli-Irelli, S., 2.
Tritonium.—Johnson, D. W.; Weaver, C. E., 2.
Trivia Zone, Norway.—Œyen, P. A., 7.
Trochactæon.—Böse, E., 2.
Trochammina.—Noth, R.
Trochobolus.—Kolb, R.
Trochoceras.—Steinmann, J. H. C. G. G., 7.
Trochocyathus.—Canavari, I.
Trochus.—Ryabinin, V.
Troctolite.—Flett, J. S., 4.
Trogontherium.—Reichenau, W. von.
Trondhjem (Norway). — Törnbohm, A. E.
Trophon.—Toula, F.
Tropidiscus.—Kormos, T., 8.
Tropidostropha.—Longstaff, J.
Truncatulina. — Canavari, I.; Chapman, F., 5; Vadász, M. E., 3.
Trygon.—Stefano, Gius. de, 3.
Tubucellaria.—Canu, F.
Tuc d'Andoubert Cavern (Ariège).—MacCurdy, G. G.
Tuckahoe (Tennessee).—Gordon, C. H., 2.
Tufa, fossiliferous. — Horwood, A. R., 3.
Tuff.—Buri, T.; Pávai-Vajna, F. von, 2; Sabatini, V., 3.
Tulameen (B.C.).—Camsell, C., 4.
Tultcha (Dobrudscha).—Cantuniari, S.
Tumkur (Mysore).—Bulaji Rao, B., 3.
Tunaria. — Steinmann, J. H. C. G. G., 7.
Tungsten.—Carne, J. E.; Hayes, C. W., 2; Hess, F. L.; *see also* Scheelite.
Tungusha (Siberia).—Gothan, W., 4.
Tunis.—Ginestous, G.; Peron, A.; Roux, H.; Thevenin, A.
Tuolluvaara (Norrbotten).—Geijer, P., 1 & 2.
Turakirae, Cape (N.Z.).—Aston, B. C.
Turbo.—Böse, E., 3; Chapman, F., 2, Ryabinin, V.
Turbonella.—Toula, F., 2.
Turgite.—Manasse, E., 2.
Turkestan. — Bogdanovich, K. I., 2; Douxami, H., 3; Launay, L. de; Mushketov, D. I.; Norris, F. E.; Prinz, G.; Sidgreaves, W.; Sokolov, D. V., 2.
Turkey.—Dominian, L.; Sidgreaves, W., 3; Walker, G. W.
Türnich (Rhenish Prussia). — Meunier, F.
Turonian. — Böhm, J., 5; Garde, G.; Krasovskii, A.
Turquoise.—Paige, S.; Schaller, W. T., 15, 21, & 25.
Turrilepas.—Gortani, M.
Turrilites.—Pervinquière, L.
Turris.—Weaver, C. E., 2.

Turritella.—Böse, E., 1–3; Herrick, C. L., 2; Johnson, D. W.; Martin, K.; Oppenheim, P.; Stefano, Giov. di; Toula, F., 2.
Turtle Mt. (Alberta).—Daly, R. A., 3.
Tuscany (Italy).—Campana, D. Del; Fucini, A.; Lotti, B.; Manasse, E., 2; Nasini, R., 3; Panichi, U.: Ravagli, M.; Stefani, C. de.
Tux Alps (Tyrol).—Sander, B., 1 & 6.
Tuzoia.—Walcott, C. D.
Tuzov (Don Prov.).—Kler, M. O.
Twinning, atacamite.—Friedel, G.
——, cryolite.—Wallerant, F. F. A., 2.
——, in crystals.—Becke, F. J. K., 3.
Tylosaurus.—Broom, R., 11.
Tylostoma.—Böse, E., 3.
Type-specimens.—Chapman, F., 3.
Typhis.—Cerulli-Irelli, S., 2.
Tyrma Valley (Siberia).—Novopokrovskiĭ, I.
Tyrol (Austria).—Ampferer, O., 2, 3, 7, & 8; Angerer, H.; Brunner, A; Canaval, R.; Görgey, R.; Granigg, B.; Haas, A.; Haas, O.; Hammer, W., 1 & 2; Heritsch, F., 8, 9, & 11; Kerner, F. von, 2 & 3; Kittl, E.; Klebelsberg, R. von, 2 & 4; Kober, L., 4; Lazarevic, M.; Ohnesorge, T.; Penck, W., 1 & 2; Sander, B., 6; Schwinner, R., 1 & 2; Termier, P., 3.

Uganda (C. Afr.).—*See* Great Britain.
Uhlig, V., *Obit.*—*See* Branca, C. W. F.; Schafarzik, F., 3; *&* Süss, F. E., 2.
Uhligella.—Joleaud, L.
Uinta Basin (Utah).—Gregory, W. K.
Uintacrinus Zone. — Dibley, G. E.; Filliozat, M., 3.
Uitenhage (Cape of Good Hope). — Schwarz, E. H. L., 2.
Ujvidék (Hungary).—Pálfy, M. von, 2.
Ukhta R. district (Russia).—Zamyatin, A. N.
Ullmannites.—Tuzson, J.
Ulmus.—Engelhardt, H.
Ulocrinus.—Wright, J. *fil.*
Ulodendron.—Bertrand, P., 2.
Ulrichia.—Kindle, E. M., 4.
Umbilicosphæra. — Arkhanghelski, A. D.
Umbrella.—Cerulli-Irelli, S.
Umbria (Italy).—Lotti, B., 2–4; Principi, P., 1 & 2.
Unconformities, Belgian Palæozoic. — Anten, J., 2.
——, Fennoscandian pre-Cambrian. — Gavelin, A., 2.
——, Kentucky.—Kindle, E. M., 2.
——, Ohio.—Prosser, C. S.
——, South Australia.—Howchin, W.
——, terminology of.—Crosby, W. O.
Undularia.—Arthaber, G. von, 2.
Unga I. (Alaska).—Atwood, W. W.
Ungulina.—Cossmann, M., 2.
Unicardium.—Fucini, A., 2.
Unio.—Clarke, W. B.; Halaváts, G. von; Menzel, H., 4; Richthofen, F. von; Teisseyre, W.
United Provinces (India).—Silberrad, C. A.
United States, economic geology. — Hayes, C. W., 2 & 3.
—— —— Geological Survey. *See* United States, Geol. Surv.
—— ——, glaciers.—Reid, H. F., 2.
—— ——, mineral wealth.—Machatschek, F.
—— ——, mining districts.—Hill, J. M.
—— ——, North Atlantic Coast.—Barrows, H. K., 2.
—— ——, surface-water. — Stevens, J. C.
—— ——. *See also* Arizona, California, Coal, Gold, *&c.*
Ural Mts. (Russia).—Chernik, G. P., 2; Duparc, L., 1 & 2; Kler, V. O.; Piña de Rubies, S.; Friz, —.; Launay, L. de.
Uralitization.—Wild, L. J.
Uraniferous niobotitanates.—Lacroix, A. F. A.
Uranium in Italian rocks.—Nasini, R.
—— -minerals, Baden.—Henglein, M., 4.
—— -rocks, Madagascar. — Lacroix, A. F. A., 9.
Uri (Switzerland).—Staub, W., 1-4.
Uromitra.—Cerulli-Irelli, S., 2.
Ursus.—Harlé, E.; Kinkelin, F., 2; Merriam, J. C.; Stefano, Gius. de; Téglás, G.
Uruguay. — Guillemain, C.; Walther, Karl.
Urville Basin (Calvados).—Cayeux, L., 4.
Usingen (Hesse).—Schneiderhöhn, H, 2.
Usk (Monmouth).—Gardiner, C. I.
Ussing, N. V., *Obit.*—*See* Anon., 18; *&* Böggild, O. B., 3.
Usson (Ariège). Massol, G.
Ussuri Bay (Siberia).—Krishtofovich, A. N., 1 & 2.
Usu-San (Japan). — Bailey, E. B., 2; Davison, C., 4; Friedländer, 1.
Utah (U.S.A.).—Butler, B. S., 1 & 2; Burling, L. D.; Gregory, W. K.; Hayes, C. W., 2; Lupton, C. T.; Richards, R. W.; Schaller, W. T., 8 & 16.
Utsire I.—Kolderup, C. F., 7.
Utznach (St. Gall).—Mühlberg, F.
Uzita.—Cerulli-Irelli, S., 2.

Vaal River System.—Molengraaff, G. A. F.
Vaccinium.—Engelhardt, H.
Vaginulina.—Canavari, I.; Vadász, M. E., 2.
Vakinankaratra (Madagascar).—Lacroix, A. F. A., 17, 18, & 20.
Valais (Switzerland).—Argand, E., 7; Desbuissons, L.; Lugeon, M., 3; Mercanton, P. L.; Woyno, T. J.

Val d'Aosta (Piedmont).—Novarese, V., 2.
Valbeleix (Puy-de-Dôme). — Glangeaud, P., 4.
Valdez Creek (Alaska).—Moffit, F. H.
Valence (Drôme).—Lamothe, — de.
Valencia (Spain).—Ewald, R.
Valencianite.—Wittich, E., 4.
Valency, crystals and.—Barker, T. V.
Valle Härad (Sweden).—Munthe, H. 3.
Valleys, Berne.—Nussbaum, F.
——. Pennsylvania.—Shaw, E. W., 2.
——, faulting & formation of.—Grupe, O.
——, glaciation of.—Distel, L.; Drygalski, E. von, 4; Penck, F. C. A.; Philippson, A., 2; Stiny, J., 2.
——. *See also* Hanging valleys.
Vallfogona (Spain).—Almeira, J.
Vallonia.—Kormos, T., 8.
Valtellina (Lombardy). — Franchi, S.; Sauerbrei, W.; Taramelli, T., 2 & 4.
Valui lui Stan (Rumania).— Popescu-Voitești, I., 4.
Valvata.—Halaváts, G. von; Kennard, A. S.; Kormos, T., 8; Lörenthey, I. von.
VAN'T HOFF, J. H., *Obit.*—*See* Bœke, H. E.
Vanadinite.—Dürrfeld, V., 3; Paul, F. P.
Vanadium.—Hess, F. L.; Watson, T. L., 3.
Vancouver (B.C.).—Clapp, C. H., 1–3; Porter, J. B.
Vanikoropsis.—Herrick, C. L., 2.
Var (France).—Bertrand, L., 2, 4, & 6; Haug, É., 2 & 3; Lanquine, A.; Lévy, Alb. M.; Martin, D.
Variscite.—Schaller, W. T., 8, 16, 21, & 23.
Vaskö (Hungary).—Löw, M., 2.
Vaucluse (France).—Cottreau, J.
Vaud (Switzerland).—Schaay, J. H.
Vaughania.—Garwood, E. J.
Veglia I.—Remeš, M., 2.
Vein-stones, W. of England.—Collins, J. H., 3.
Vein-quartz, Ontario.—Moore, E. S., 4.
Veins, Hesse.—Schneiderhöhn, H., 2.
——, Passau.—Frentzel, A.
——, Russia.—Chervinskiĭ, P. N., 2.
——, Saxony.—Beck, R.
——, arrangement of tin-ore in.—Brown, G. E.
——, auriferous.—Hubert, H., 4; Schumacher, F., 2.
——, contact - metamorphism near quartz-.—Baumgärtel, B.
——, formation of.—Vialay, A.
——, mineralization in cupriferous. — Kirk, C. T.
——, stanniferous.—Tronquoy, R., 4.
——, tourmaliniferous quartz-.—Rauw, H. de.
——. *See also* Fissure-veins, *&c.*
Veldre (Norway).—Björlykke, J. O.
Velebit (Croatia).—Poljak, J., 2.
'Velika Jama' (Friuli).—Fabiani, R., 4.
Veltlin, *see* Valtellina.
Vendée (France).—Grossouvre, A. de; Welsch, J., 1 & 3.
Vendrest (Seine-et-Marne).—Baudouin, M., 2; Hue, E.
Venericardia.—Weaver, C. E., 2.
Venerupis.—Cossmann, M., 2.
Venetia (Italy).—Craveri, M., 2; Dainelli, G., 2; Dal Piaz, G., 3; Fabiani, R., 1, 2, & 4; Kranz, W., 7; Maddalena, L.; Parona, C. F., 2; Stefani, C. de, 5; Stefanini, G., 4; Toni, A. de.
Venezuela.— Bendrat, T. A.; Dalton, L. V.
Ventersdorp System. — Humphrey, W. A., 5.
Ventriculites.—Schrammen, A.
Venus.—Böse, E.; Krenkel, E.
Verbano, Lake (Lombardy).—Patrini, P., 2; Taramelli, T., 3.
Vercors (Dauphiné).—Jacob, C.
Verespatak (Hungary).—Pálfy, M. von, 4.
Vermetus.—Böse, E.
Vermont (U.S.A.).—Dale, T. N.
Verni (Semipalatinsk).—Gholitzuin, B.
Verruca.—Nielson, K. B.
Verrucano.—Fucini, A.; Lotti, B.
Vertebrata, Cretaceous.— Sternberg, C. H.
——, Tertiary.—Vasseur, G., 1 & 2.
——, fossil.—Abel, O., 3.
——, origin of the.—Tooke, W. H.
——, reconstruction of fossil.—König, F.
——, West N. American terrestrial.—Schaffer, F. X., 4.
——. *See also* Pisces, *&c.*
Vertebrate palæontology.—Abel, O., 9.
—— ——, Canadian.—Lambe, L. M., 2.
Vertigo.—Kennard, A. S.
Vervins (Aisne).—Fritel, P. H.
Veryan Series.—Flett, J. S., 4.
Vesuvius (Italy).— Brun, A.; Friedländer, I., 2; Malladra, A.; Miele, A. G.; Rossi, P.
Veszprém (Hungary).—Laczko, D.
Veta Madre (Mexico).—Wittich, E., 4.
Veta Rica Mine (Mexico).—Van Horn, F. R.
Vetacapsula.—Vernon, R. D.
Vicenza (Venetia). — Fabiani, R., 2; Maddalena, L.; Stefani, C. de, 5.
Vichy (Allier).—Laborde, A.
Victoria (Australia).—Baragwanath, W.; Chapman, F., 1, 2, 7, 8, & 10–12; David, T. W. E.; Dunn, E. J., 1–13; Ferguson, W. H., 1 & 2; Hall, T. S.; Howchin, W., 2; Howitt, A. M., 1–8; Mahony, D. J.; Skeats, E. W.; Steel, T.; Stillwell, F. L.; Whitelaw, H. S., 1 & 2; Whitelaw, O. A. L.; *see also* VICTORIA, Dep. Mines.

Victorian & Tasmanian Jurassic, correlation.—Chapman, F., 9.
Vielsalm (Luxemburg).—Anten, J., 2.
Vienna Basin (Austria).—Kober, L.; Spitz, A.
'Vierkanter.'—Lozinski, W. von, 2.
Vigarano (Sicily).—Gregorio, A. de.
Vigezzo Valley (Piedmont).—Craveri, M.
Villány (Hungary).—Lóczy, L. von, 5; Till, A.
Villard-de-Lans (Isère).—Jacob, C.
Villedar (Morbihan).—Tronquoy, R., 4.
Villeréal (Lot-et-Garonne).—Dalloni, M.; Repelin, J., 2 & 4.
Villers-aux-Tours (Liége).—Rauw, H. de, 2.
Vincularia.—Bassler, R. S.
Vindelizite.—Löffler, R.
Vinella.—Bassler, R. S.
Virgatites.—Burckhardt, C.; Douvillé, R., 1 & 5; Sauvage, H. E., 3.
Virgatosphinctes.—Douvillé, R., 5.
Virgilina District (N. Carolina).—Laney, F. B.
Virginia (U.S.A.).—Berry, E. W., 4 & 5; Branson, E. B.; Darton, N. H., 2; Kindle, E. M.; Laney, F. B.; Schaller, W. T., 15 & 25.
Viridine.—Klemm, G., 3.
Virtonian.—Jérome, A.
Vivianite.—Ungemach, H.
Viviparus.—Clark, W. B.; Halaváts, G. von; Lörenthey, I. von.
Vizille (Isère).—Gignoux, M., 2; Kilian, C. C. W., 2 & 3; Lory, P.
Vobster Inlier (Somerset).—Sibly, T. F.
Vœlckerite.—Rogers, A. F., 3.
Vogelgebirge (Hesse).—Schottler, W.
Vogtsburg (Baden).—Söllner, J.
Vola.—Böse, E., 3; Krenkel, E.
Volcanic action, Dakota (S).—Darton, N. H., 3.
—— ——, Dalradian.—Mackie, W., 2.
—— ——, Naples.—Kranz, W., 4.
—— ash, Alaska.—Smith, P. S., 3.
—— ——, Argentine Quaternary.—Ameghino, F.
—— ——, Kodiac I.—Fry, W. H.
—— ——, Moldavia.—Athanasiu, S., 3; Enculescu, P.
—— cones & craters.—Friedländer, I., 2.
—— district of the Laacher See.—Brauns, R.
—— eruptions, Etna.—Ponte, G.; Sieberg, A., 2.
—— ——, Tarawera, 1886.—Park, J.
—— exhalation.—Niggli, P., 2.
—— gas.—Clark, F. W.
—— rocks, Aberdeenshire.—Mackie, W.
—— ——, Californian Tertiary.—Baker, C. L.
—— ——, East Africa.—Goldschlag, M.
—— ——, Forez district.—Glangeaud, P., 2.
—— ——, Italy.—Sabatini, V., 1 & 2.
—— ——, Madagascar.—Lacroix, A. F. A., 6.
Volcanic rocks, Pyrenees.—Lapparent, J. de.
—— ——, Réunion I.—Lacroix, A. F. A., 7.
—— ——, São Thomé & Fernando Po Is.—Böse, W.
—— ——, heat-conductivity of.—Friedländer, I., 4.
—— ——, origin of intrusions in.—Lacroix, A. F. A., 7.
—— ——, sequence of Scottish.—Flett, J. S., 3.
—— tuffs, consolidation of.—Sabatini, V., 4.
—— tuff, limestone metamorphosed by.—Dublancq-Laborde.
—— vent, St. Andrews (Fife).—Balsillie, D.
—— vortex rings.—Perret, F. A.
Volcanoes.—Anderson, T., 1 & 2; Vialay, A.
——, Atlantic Is.—Komorowicz, M. von, 2.
——, Auvergne.—Glangeaud, P., 3 & 5.
——, Celebes.—Ahlburg, J., 3.
——, Chile.—Steffen, H., 1 & 2.
——, Costa Rica.—Tristán, J. F., 5.
——, Etna.—Ponte, G., 2.
——, Fife.—Craig, R. M.
——, Hawaii.—Jaggar, T. A., *fil.*
——, Japan.—Bailey, E. B., 2; Davison, C., 4; Friedländer, I.; Omori, F., 2.
——, Java.—Douglas, E. A.; Fennema, R.
——, Madagascar.—Lacroix, A. F. A., 30.
——, New Guinea.—Sapper, K. T.
——, New Zealand.—Bell, J. M.
——, Réunion I.—Lacroix, A. F. A., 3, 4, & 30.
——, Savaii.—Anderson, T.; Schmittmann, J.
——, ascent of air over active.—Wegener, K.
——, gases of.—Brun, A.
——, origin of.—Kranz, W., 6.
——, Permian.—Lapparent, J. de.
——, terminology of.—Sapper, K. T., 3.
——. *See also* Mud-volcanoes *&* Vulcanism.
Volga-Swiaga district (Russia).—Mazarovich, A., 1 & 2.
Volhynia (Russia).—Krishtofovich, A. N., 3 & 4.
Voltzia.—Fliche, P.
Volutomorpha.—Herrick, C. L., 2.
Volvula.—Cerulli-Irelli, S.
Vorarlberg (Austria).—Lebling, C., 2; Mylius, H., 1 & 2; Seidlitz, W. von; Tornquist, A., 3; Wepfer, E., 2.
Voronezh (Russia).—Litvinov, D. I.
Voroux-Goreux (Liége).—Halet, F.; Lohest, M., 5.
Vosges (France).—Lévy, Alb. M., 2.
Vraconian, Peru.—Schlagintweit, O.
Vrbaite.—Ježek, B., 2.; Křehlik, F.

Vredehoek (Cape of Good Hope).—Nellmapius, E. H.
Vulcanism.—Branca, C. W. F., 2; Brun, A., 1 & 2; Szádeczky, J. von; Winchell, A. N., 2.
Vulcanology.—Bucca, L.; Friedländer, I., 3.
Vulpes.—Kormos, T. S.; Stefano, Gius. de.
Vyatka (Russia).—Krotov, P.

Waagenia.—Burckhardt, C.
Waagenoceras.—Arthaber, G. von.
Waanyarra (Victoria).—Howitt, A. M., 5.
Wadai (Sudan).—Lemoine, P., 5.
Waipara Gorge (N. Z.).—Speight, R., 2.
Wakarusa Creek (Kansas).—Todd, J. E., 2.
Walchen Lake (Bavaria).—Aufsess, O. F.
Walchia.—Hardaker, W. H.; Vernon, R. D.
Waldheimia.—Haas, O.; Tommasi, A.; Vadász, M. E.
Waldviertel (Lr. Austria). — Reinhold, F.
Wales (Central).—Jones, O. T.
—— (North).—Hutchinson, A., 4.
—— (South) Coalfield.—Arber, E. A. N., 4; Strahan, A., 2.
WALL, G. P. *Obit.—See* Watts, W. W.
WALLACE, A. R. *Biogr.—See* Osborn, H. F., 7.
Wandre (Liége).—Tetiaev, M.
Wangen (Berne).—Æberhardt, B., 3.
Wangen (Schwyz).—Mühlberg, F.
Wangschiefer.—Arbenz, P.
Waptia.—Walcott, C. D.
Wardour, Vale of.—Ord, T.
Warmbaths (Transvaal).—Kynaston, H.
Warren County (Iowa).—Tilton, J. L.
Warren County (New York). — Miller, W. J., 2 & 3.
Warton Crag (Lancs.).—Jackson, J. W., 2 & 3.
Warwickshire.—Hardaker, W. H.; Maidwell, F. T.; Matley, C. A.; Richardson, L.; Vernon, R. D.
Waschberg (Austria).—Kohn, V.
Washington (U.S.A.).—Evans, G. W.; Hershey, O. H., 2; Landes, H.; Smith, E. E.; Umpleby, J. B., 1 & 2; Weaver, C. E., 1 & 2; Zapffe, C., 2.
Water, Astrakhan.—Frolov, A. M.
——, Belgium.—Gillet, C.
——, Bohemia.—Hibsch, J. E.
——, California.—Clapp, W. B.; Johnson, H. R.
——, Cape of Good Hope.—Schwarz, E. H. L., 2.
——, Cellina Basin.—Dainelli, G., 2.
——, Cornwall.—Colenso, W.
——, Colorado.—Freeman, W. B.; Siebenthal, C. E.
Water, Gloucestershire. — Austin, R.; Garrett, J. H.; Richardson, L., 4 & 6.
——, Granada.—Alvarez Aravaca, M.
——, Grunewald.—Keilhack, L. H. K., 3.
——, Huesca.—Bentabol, H.
——, Illinois.—Savage, T. E.
——, Indiana.—Capps, S. R., 2.
——, Istria.—Waagen, L.
——, Jura & Vosges.—Fournier, E., 2
——, Kharga.—Beadnell, H. J L., 2; Grabham, G. W., 2.
——, Liguria.—Crema, C.
——, London Basin. — Thresh, J. C.; *see also* LONDON, Metropolitan Water Board.
——, Lunigiana.—Crema, C.
——, Maine.—Barrows, H. K.
——, Mexico.—Villarello, J. D., 2.
——, Mississippi Basin.—Freeman, W. B., 2.
——, Missouri Basin.—Lamb, W. A.
——, Morocco (N.).—Malmejac, F.
——, Moscow.—Vinogradov, A.
——, Mysore.—Sen, A. M.; Smeeth, W. F., 4; Wetherell, E. W.
——, New Mexico.—Meinzen, O. F.
——, Recos Basin.—Freeman, W. B., 3.
——, Poitou.—Welsch, J., 5.
——, Portsmouth.—Ashley, H.
——, Savoy.—Révil, J., 2.
——, Saxony.—Linstow, O. von.
——, Seville.—Friend, C. A.
——, Simplon.—Chuard, E.
——, Somme.—Gosselet, J. A. A., 2.
——, South Australia. — Brown, H. Y. L.
——, Surrey.—Whitaker, W.
——, Tarragona.—Bentabol, H., 2.
——, Transvaal.—Leitch, D. C.
——, U.S.A., Barrows, H. K., 2; Follansbee, R.; Fuller, M. L.; Hall, M. R.; Stevens, J. C.; Wood, B. D.
——, Venetia.—Fabiani, R., 2; Stefanini, G., 4.
——, Wales (S.).—Lloyd, J.
——, artesian.—Delecourt, J. *fil.*
——, filtration of river. — Scheelhaase, —.
——, health & subterranean.—Latham, B.
——, lakes of North Germany. — Jentzsch, C. A., 6.
——, lodes and.—Collins, J. H.. 3.
——, movement of subterranean.—Versluys, J.
——, peculiarities of wells and.—Thompson, B., 2.
——, sulphurous.—Hackl, O.
——, wearing power of subterranean.—Vallot, J.
Water-divining, radioactivity and.—Thompson, B.
Water-finders, experiments with. — Wertheimer, J.
Water-levels, France.—Imbeaux, E.

Water-stones, formation of.—Liesegang, R. E., 6.
Brown, H. Y. L.
——. *See also* Artesian wells, Radioactive springs, *&c.*
Waterberg district (Transvaal).—Anderson, W.; Kynaston, H.; Mellor, E. T.
Waterberg System, Transvaal.—Wagner, P. A., 2.
Watford (Herts).—Kidner, H., 1 & 2.
Watlington (Oxon.).—Hawkins, H. L., 5.
Waulsort (Belgium).—Brien, V., 3; Lohest, M., 2.
Waurich boring (Rhenish Prussia).—Quaas, A.
Waverlyan Period.—Bassler, R. S., 2.
Wavre (Brabant).—Mourlon, M. F.
Wayland (New York).—Luther, D. D.
Wealden, China.—Richthofen, F. von.
——, I. of Wight.—Hooley, R. W.
——, Kent borings.—Lamplugh, G. W., 9.
Weathering.—Lotz, H.
——, alum & gypsum as causes of.—Beyer, O.
——, building-stones and.—Hanisch, A.; Hirschwald, J., 1 & 2; Van der Kloes, J. A.
——, Egyptian desert.—Walther, J. K., 5.
——, igneous rocks.—Glinka, K. D.
——, rocks of Delos.—Cayeux, L., 2.
——, West African acid rocks.—Hubert, H., 3.
Websterite.—Bell, J. M., 2.
Wedderburn Goldfield (Victoria).—Whitelaw, O. A. L.
Wehla (Victoria).—Howitt, A. M., 3.
Wehrlite.—Butz, J.; Pálfy, M. von.
Weinheim (Baden).—Freudenberg, W.
Weinmannia.—Engelhardt, H.
Weissenstein Range (Jura Mts.).—Buxtorf, A., 3.
Weissenstein Tunnel (Solothurn).—Künzli, E.
Weistritz Valley (Silesia).—Berg, G., 2.
Weitenegg (Austria).—Hlawatsch, C., 2.
Weka Pass Stone, New Zealand.—Park, J., 2; Thomson, J. A., 3.
Wellington (N.Z.).—Cotton, C. A.; Hogben, G., 2.
Wellington College (Berks).—Lupton, H. R.
Wellington Peninsula (N.Z.).—Cotton, C. A., 2.
Wells, Christchurch (N.Z.).—Hilgendorf, F. W.
Welsh Hook Beds.—Thomas, Herbert H.
Weltrichia.—Nathorst, A. G., 2.
Wendover (Bucks.).—Pocock, R. W., 2.
Werfen Beds.—Rassmuss, H.; Wittenburg, P. von., 4.
Werra (Meiningen).—Brandes, T., 2.
Werra-Fulda salt-district (Hesse).—Beck, K.
Weser Valley (Germany).—Grupe, O., 3.
West Africa.—Hatch, F. H., 4; Hubert, H., 3 & 4; Lacroix, A. F. A., 2; Stromer, E., 1 & 2.
Westerbotten (Sweden).—Geijer, P., 3.
West Indies.—Guppy, R. J. L., 1–3; Spencer, J. W. W.
Western Australia.—Glauert, L., 2–4; MacLaren, M.; Montgomery, A.; Simpson, E. S.; Thomson, J. A., 2 & 4; *see also* WESTERN AUSTRALIA, Dep. Mines.
Westmorland.—Garwood, E. J.; Munro, M.; Woodward, A. S., 5.
Westphalia (Germany).—Ahlburg, J.; Bärtling, R., 2; Bornhardt, W.; Brandes, T., 4; Löscher, W.; Menzel, H., 4; Mestwerdt, A., 1 & 2.
Westphalian.—Carpentier, A., 5; Pussenot, C., 3.
Wetterau (Germany).—Plank, A.
Wetterstein Mts. (Bavaria).—Ampferer, O., 3; Schlagintweit, O., 2.
Wewokella.—Girty, G. H.
Wexford County (Ireland).—Hallissy, T.
Whatatutu (New Zealand).—Adams, J. H.
Whicham (Cumberland).—Smith, Bernard, 2.
Whim Well copper-mine (W. Australia).—Sleeman, H. R.
WHITE, C. A.—*Obit.*—*See* Watts, W. W.
White Horse Hill (Berks.).—White, H. J. O.
WHITEAVES, J. F.—*Obit.* *See* Anon., 19.
Wichita Formation.—Gordon, C. H.
Widdringtonites.—Berry, E. W., 1 & 4; Zeiller, R.
Wiesbaden (Nassau).—Fresenius, H.; Gerth, H.; Herrman, F., 4; Neuenhaus, H.
Wiese Valley (Baden).—Buxtorf, A., 6.
Wieseck (Hesse).—Engelhardt, H., 2; Mordziol, C., 3; Stoltz, K.
Wight, I. of.—Chandler, R. H.; Hooley, R. W., 1 & 2; Hull, E., 2; Reed, F. R. C., 1 & 2.
Wilhelmshagen (Lüneburg).—Wahnschaffe, F.
Willemite, fluorescence in ultraviolet light.—Liebisch, T., 2.
Williamsonia.—Nathorst, A. G.; Thomas, H. Hamshaw.
Wilunga Valley (S. Australia).—Howchin, W.
Wilsonia.—Gortani, M.
Wiltshire.—Ord, T.; Withers, T. H.
Wiltshireite.—Lewis, W. J.
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